

# **Table of Contents**

MISSION	5
OBJECTIVES	5
GENERAL INFORMATION	5
FACILITY AND EQUIPMENT	5
ADMINISTRATION DAYS / HOURS	5
HOLIDAYS	5
APPROVAL	6
ADMISSIONS POLICY AND PROCEDURE	6
POLICY	6
PROCEDURE	9
INTERNATIONAL STUDENTS AND ENGLISH LANGUAGE SERVICES	9
FOREIGN TRANSCRIPT EVALUATION	9
ABILITY-TO-BENEFIT	10
TRANSFER OF CREDIT	10
NOTICE CONCERNING TRANSFERABILITY OF CREDITS AND CREDENTIALS EARNED AT OUP INSTITUTION	? 10
ARTICULATION AGREEMENTS	10
PROGRAMS	11
Data Analytics Career Track	11
Data Science Career Track	13
Data Science Career Track Plus	16
Data Engineering Career Track	19
ML Engineering Career Track	23
UX Career Track	26
UI/UX Design Career Track	29
Software Engineering Career Track	35
Cyber Security Career Track	44
Intro to Design	48
Data Science Career Track Prep	49
Software Engineering Career Track Prep	51
ACADEMIC POLICIES	53
SATISFACTORY PROGRESS	53
PROBATION	53
GRADING SYSTEM	53
WITHDRAWAL	54
ATTENDANCE	54
LEAVE OF ABSENCE POLICY	54
GRADUATION REQUIREMENTS	56
STUDENT SERVICES	56
ACADEMIC ADVISING	56

HOUSING	56
RESOURCE CENTER	56
CAREER SERVICES - THE SPRINGBOARD GUARANTEE	57
STUDENT RECORDS	60
GRIEVANCE PROCEDURE	61
CANCELLATION, WITHDRAWAL AND REFUND POLICY	61
STUDENT'S RIGHT TO CANCEL	61
WITHDRAWAL FROM THE PROGRAM	62
TUITION AND FEES (California residents)	64
TUITION AND FEES (Non-California residents)	64
LOAN	64
STUDENT TUITION RECOVERY FUND	65
MANAGEMENT, STAFF AND FACULTY	67
MANAGEMENT & STAFF	67
MENTORS	67
STATE OF CALIFORNIA CONSUMER INFORMATION	89
CATALOG CHANGES	90

# MISSION

Springboard's mission is to enable every individual to access high-quality education and acquire the skills needed to advance their careers.

We believe that the new economy needs a different approach to education. Education is no longer a one-time investment at the beginning of one's career; it's a lifelong pursuit. We provide online content, industry-driven mentorship, and career support in an effective way to enable people to learn new skills and further their careers.

# **OBJECTIVES**

In order to fulfill its mission, Springboard is committed to the following objectives for its educational and training programs:

Deliver high-quality content that helps students gain the practical skills needed to succeed in their careers.

Provide a strong mentorship community for students to gain more insight into industry,

further sharpen their skills, and build a stronger professional network.

Cultivate an innovative environment where mentors and instructors can combine content development with human support and utilize technology to more effectively deliver an effective educational experience.

# **GENERAL INFORMATION**

#### FACILITY AND EQUIPMENT

Springboard is located at 22 Battery Street, Floor 11, San Francisco, CA 94111. All programs are offered in a distance education format. Coursework is completed at a location determined by the student.

Springboard's office is approximately 9,300 square feet that includes a reception area, training room and offices. Equipment within the office includes office furniture, printer, laptops, monitors, TV screens.

#### **ADMINISTRATION DAYS / HOURS**

8 am to 5 pm Monday – Friday Pacific Standard Time.

#### HOLIDAYS

Springboard observes the following holidays:

- New Year's Day
- Memorial Day
- Labor Day

- Independence Day
- Thanksgiving Day and the day after
- Christmas vacation (last week of the year)

# **APPROVAL**

Springboard is a private institution approved to operate by the California Bureau for Private Postsecondary Education. Approval to operate means the institution is compliant with the minimum standards contained in the California Private Postsecondary Education Act of 2009 (as amended) and Division 7.5 of Title 5 of the California Code of Regulations.

# **ADMISSIONS POLICY AND PROCEDURE**

# **POLICY**

### General:

All prospective students must:

- Have a high school diploma or equivalent. Springboard will accept as a recognized equivalent of secondary education a GED, passing score on the California High School Proficiency Exam, a DD214 that indicates high school equivalency, a degree issued to the student that indicates high school graduation and date, or documentation of completion of a bachelor's degree;
- Be fluent in English;
- Fill out a short application form and a technical skills survey as part of the admissions process;
- Be provided a catalog;
- Be provided the School Performance Fact Sheet;
- Document aptitude for a distance education program via a questionnaire;
- Document on the enrollment agreement at a minimum the following equipment required to participate in a distance education program:
  - o Computer
  - o Internet Connection and Browser
  - o Skype

#### **Program Specific:**

Program	Admissions Prerequisites
Data Science Career Track	This data science bootcamp was designed for people with prior experience in statistics and programming, such as software developers, analysts, and finance professionals. All professional and academic backgrounds are welcome.
	<ul> <li>Prerequisites:</li> <li>6 months of active coding experience with a general-purpose programming language (e.g., Python, R, Java, C++)</li> </ul>

	• Comfortable with basic probability and descriptive statistics, including concepts like mean and median, standard deviation, distributions, and histograms
Data Science	This data science bootcamp is similar to our Data Science Career Track
Career Track Plus	with additional mentor support and live classes.
	Prerequisites: • 6 months of active coding experience with a general-purpose
	programming language (e.g., Python, R, Java, C++)
	• Comfortable with basic probability and descriptive statistics, including concepts like mean and median, standard deviation, distributions, and histograms
Data Analytics	This data analytics bootcamp is designed for people who demonstrate an
Career Track	of work experience.
	Prerequisites:
	<ul> <li>Strong critical thinking and problem-solving skills</li> <li>2 years of professional work experience working regularly with</li> </ul>
	office, design or programming tools
	• Fluency in English (written and spoken), as determined by initial interactions with the Springboard Admissions team.
Data Engineering Career Track	This data engineering bootcamp was designed for students with some experience in a data analyst, data science, or software engineering role.
	Prerequisites (any of the following are sufficient):
	• 6+ months of work experience in any analytical role, ideally working with SQL
	• 6+ months of work experience as a software engineer using Python or Java or C++
	<ul> <li>Bachelor's degree in CS or other degree that involves extensive programming skills</li> </ul>
MI Engineering	This MI Engineering bootsome is designed for econly with strong
Career Track	software engineering skills and industry experience, who want to become Machine Learning Engineers.
	<ul> <li>Prerequisites (any of the following are sufficient):</li> <li>1+ year of professional experience working in software engineering and development OR data science using a general-purpose OOP language such as Python, Java, and C++</li> <li>a Master's or Ph.D. degree in CS, Math, EE, Physics, Data Science, Informatics, Economics, Operations Research, Financial Engineering, Applied Stats or other degree that involves extensive programming experience</li> </ul>

UX Career Track	This UX bootcamp is for people who demonstrate an aptitude toward problem solving, have strong communication and collaboration skills, and
	have a background in adjacent fields.
	Prerequisites: • Aptitude toward problem-solving, communication, and
	<ul> <li>At least 1 year of documented professional experience or a degree in one of the following areas: understanding users, producing/managing visual content, or developing digital products. For example: user research, HCI, human factors; graphic/industrial design, architecture, studio arts; UI design</li> </ul>
UI/UX Design Career Track	The two-step admissions process screens for candidates who demonstrate strong visual, creativity, and communication skills (which are critical on a cross-functional design team).
	<ul> <li>Prerequisites:</li> <li>All backgrounds are welcome as long as you can demonstrate strong visual, creativity, and communication skills</li> <li>Passing an evaluation of baseline visual skills, analytical thinking and the ability to empathize with users</li> </ul>
Software Engineering Career Track	This software engineering bootcamp is designed for motivated people who have basic skills in JavaScript, an aptitude for problem solving, and strong communication and collaboration skills. We welcome students from all work experiences and fields of study.
	<ul> <li>Prerequisites:</li> <li>JavaScript fundamentals - Ability to write simple functions, loops, conditional statements and declare variables</li> <li>Programmatic problem solving skills - Ability to break down a problem into its component pieces, think through it logically, and come up with a solution</li> <li>Recommended: HTML &amp; CSS fundamentals - Ability to build simple web pages with basic knowledge of selectors, common CSS rules and specificity</li> </ul>
Cyber Security Career Track	This cybersecurity bootcamp is designed for people who have an appetite to try new things, an aptitude for problem-solving, and strong communication and collaboration skills.
	<ul> <li>Prerequisites:</li> <li>All backgrounds are welcome, as long as you can demonstrate strong analytical skills and a determination to work through and complete all required course activities</li> <li>Passing an evaluation of baseline soft-skills, centered around communication skills, motivation, professionalism, a commitment to learning and an analytical mindset</li> </ul>

Intro to Design	This course is for people who are interested in UI/UX, but are not ready to make the full leap to switch careers. All professional and educational backgrounds are welcome
Data Science	This data science bootcamp is designed for students who want an
Career Track Prep	<ul> <li>Inits data science booteamp is designed for students who want an introduction to foundational data skills in Python and statistics, as well as introductory data science concepts. The curriculum is specifically designed to help you pass the Data Science Career Track admissions technical survey.</li> <li>Prerequisites: <ul> <li>All professional and educational backgrounds are welcome; no coding experience required.</li> <li>Recommended proficiency in high-school level mathematics</li> </ul> </li> </ul>
Software	This program is designed for students who want an introduction to
Engineering	foundational coding skills. The curriculum is specifically designed to help
Career Track Prep	you pass the Software Engineering Career Track admissions technical survey.
	All professional and educational backgrounds are welcome.

### **PROCEDURE**

Admissions procedures include meeting with a Springboard representative to review goals, program details and prerequisites, as applicable, school policies and procedures, the School Performance Fact Sheet, catalog, and graduation requirements. Each prospective student must:

- Provide documentation of a high school diploma or equivalent;
- Review the catalog;
- Initial and sign the School Performance Fact Sheet;
- Complete a distance education questionnaire;
- Interview with an Admissions Director;
- Provide documentation as requested to demonstrate meeting program specific prerequisites, as applicable; and
- Complete the enrollment agreement.

## **INTERNATIONAL STUDENTS AND ENGLISH LANGUAGE SERVICES**

Springboard does not offer visa services to prospective students from other countries or English language services. Springboard does not offer English as a Second Language instruction. All instruction occurs in English. English language proficiency is documented by:

- 1. the admissions process; and
- 2. Springboard's receipt of prior education documentation as stated in the admissions policy.

# ABILITY-TO-BENEFIT

Springboard does not admit ability-to-benefit students.

### TRANSFER OF CREDIT

Springboard does not evaluate or award transfer credit from units earned at other institutions.

Springboard does not accept hours or credit through transfer of credit challenge examinations, achievement tests, or experiential learning.

## **NOTICE CONCERNING TRANSFERABILITY OF CREDITS AND CREDENTIALS EARNED AT OUR INSTITUTION**

The transferability of credits you earn at Springboard is at the complete discretion of an institution to which you may seek to transfer. Acceptance of the certificate you earn in the educational program is also at the complete discretion of the institution to which you may seek to transfer. If the certificate that you earn at this institution is not accepted at the institution to which you seek to transfer, you may be required to repeat some or all of your coursework at that institution. For this reason, you should make certain that your attendance at this institution will meet your educational goals. This may include contacting an institution to which you may seek to transfer after attending Springboard to determine if your certificate will transfer.

#### **ARTICULATION AGREEMENTS**

Springboard has not entered into any transfer or articulation agreements with any other college or university.

# PROGRAMS

#### **Data Analytics Career Track**

Program Length: 354 Hours
Cumulative Final Exam: Cumulative Capstone Project
Graduation Document: Certificate of Completion
Standard Occupational Code / Potential Employment Titles: 15-2051.01 - Business
Intelligence Analysts
Sample of reported job titles: Business Intelligence Analyst, Competitive Intelligence Analyst,
Data Analyst, Intelligence Analyst, Market Intelligence Analyst, Market Intelligence Consultant,
Strategic Business and Technology Intelligence Consultant, Strategist

#### **Program Description / Objectives:**

In addition to small projects designed to reinforce specific concepts, you'll complete two capstone projects focused on a realistic data analytics scenario that you can show to future employers.

While working on the projects, you'll:

- Choose an industry dataset
- Conduct end-to-end analysis
- Synthesize insights in slide deck format
- Present your findings

Subject Title	Subject Description
Framing	All data analysis starts with a question. But how does one ask the right
Structured	question? In this unit, you'll learn to think in a structured manner and break
Thinking	down problems into bite-sized chunks, which can be tested. This will guide
-	your analysis and prevent you from analyzing data for the sake of analysis.
	• Structured thinking through case studies and problem statement
	worksheets
	• Problem Solving Framework and Processes such as the HDEIP
	Framework
	Issue Trees, Hypotheses Trees, and Value Driver Trees
Analyzing	A key skill analysts should have is the ability to structure their efforts
Business	around a central theme and present it to an executive with tangible business
Problems	insight. In this unit, you'll be introduced to common financial concepts as
	well as the basics of economics.
	• Using Excel to create a default financial analysis module covering
	revenue and operational cost modelling.
	• Financial concepts including revenue, cost of goods sold, profit, balance
	sheets, cash flow statements, income statements and EBIT
	• Economic concepts including supply and demand curves, cost curves
	• Statistical concepts including descriptive statistics (mean, mode,
	standard deviation, correlations etc.), correlations, simple and
	multivariate regression, confidence intervals

Connecting	You've been asked to analyze an extensive set of data so you can answer the
Data Using	burning question your executive has. In this unit, you'll develop a high-level
SOL	understanding of what databases are, learn about the databases that you can
~ <-	use in your work and learn how to communicate with databases
	• Introduction to SOL best practices in writing queries (including
	common table expressions) and common DA/BA tools
	<ul> <li>Introduction to structured and unstructured Databases</li> </ul>
	<ul> <li>Introduction to set theory</li> </ul>
	<ul> <li>Introduction to set theory</li> <li>Case studies and hands on everyises in writing SOL with real data</li> </ul>
	• Case studies and hands-on exercises in writing SQL with real data
x 7' 1' '	• Advanced supplementary material (i.e. Mode SQL)
Visualizing	Coding skills, especially the ability to do data analysis in Python, are an
Data with	additional skill set which will set you apart from your peers in the job
Python	market. In this unit, you'll learn the basics of Python and key Python
	libraries, including pandas, numpy, matplotlib, seaborn, and more. You will
	learn how to import and wrangle data, as well as visualize it.
	Basic Python syntax
	Introduction to Jupyter and Jupyter Notebooks
	Data cleaning
	Visualizing data and trends with Seaborn and Matplotlib
	• Practical exercises in Python with real data to extract insights that could
	be presented to an executive audience
Communicating	Data analysts also need to be adept at presenting the results of their analysis
Your Analysis	to the appropriate stakeholders. This is a key, high-demand skill that
_	separates effective business-oriented data analysts from the rest. This unit
	covers best practices for presenting to both technical and non-technical
	audiences, ranging from front-line employees to executives.
	• Visualization tools such as Tableau and PowerBi
	• Creating presentations with Powerpoints etc.
	• Effective communication strategies, formats, and templates
	• Presentations to technical and non-technical stakeholders, and C-suite
	executives through case studies
	······································
	• Presentation practice across different forms

## **Data Science Career Track**

Program Length: 500 Hours

Cumulative Final Exam: Cumulative Capstone Project

Graduation Document: Certificate of Completion

**Standard Occupational Codes / Potential Employment Titles**: 15-2051.00 - Data Scientists **Sample of reported job titles:** O'NET Online title of Data Scientists represents an occupation for which data collection is currently underway.

### **Program Description / Objectives:**

Each subject will cover a key aspect of Data Science and have a combination of materials: lectures, theory, coding exercises, reading/viewing exercises, and career related coursework.

In addition to small projects designed to reinforce specific technical concepts, you'll complete three capstone projects focused on realistic data science scenarios that you can show to future employers.

While working on the projects, you'll:

- Identify a client's business problem
- Acquire, wrangle, and explore relevant data
- Use machine learning to make predictions
- Create real-world business impact through data storytelling

Subject Title	Subject Description
The Data	The course centers around the Data Science Method. This method involves
Science	six steps:
Method	1. Problem Identification - this step involves identifying the correct problem to solve and setting goals for your project. You'll learn how to create a SMART problem statement and form hypotheses about the problem.
	2. Data Wrangling - this step involves the collection, organization, and definition of a dataset or datasets. You'll learn how to compile data, build local file structures, create data profiles, resolve formatting issues, and more.
	3. Exploratory Data Analysis - this step involves creating plots and charts to understand the relationship between data and the features of that data. You'll learn how to create data visualizations in Python and use statistics to identify patterns.
	<ol> <li>Pre-processing and Training Data Development - this step involves standardizing and training your dataset. You'll learn how to remove out-of-value ranges and create testing and training subsets of your data.</li> </ol>
	5. Modeling - this involves selecting, training and deploying a model to make predictive insights. You'll learn industry-standard algorithms to build models.

	6. Documentation - this involves documenting the work you've done
	and sharing your findings. You'll learn how to create a project report
	and present your findings.
The Python	Python has become a lingua franca of data science. In this unit, you'll learn
Data Science	to program in Python, how to follow best coding practices, and start using an
Stack	ecosystem of powerful Python-based tools.
	• Python data types, foundations, and standard libraries
	• Pandas
	Visualization tools in Python like matplotlib and Seaborn
SQL and	In this section of the course, you'll learn how to leverage Structured Query
Databases	Language (SQL) to query relational database management systems. In other
	words, you'll use queries to understand the data contained in databases.
	Topics covered:
	• The landscape of SQL and databases
	<ul> <li>Writing queries in SQL</li> <li>Warking with relational databases in Duthon</li> </ul>
Data	• Working with relational databases in Fython
Data Storytelling	If there's one thing that most data science is not just about the math the
Storytening	algorithms and the analysis it's also about telling a good story. In real life
	data scientists don't work in a vacuum - there's always a client internal or
	external waiting on the results of their work
	external, watching on the results of their work.
	A data story is a powerful way to present insights to your clients, combining
	visualizations and text into a narrative. But storytelling is an art, and needs
	creativity. This section will try to get your creative juices flowing by
	suggesting some interesting questions you can ask of your dataset, and will
	cover a few plotting techniques you can use to reveal insights
Statistical	Statistics is the mathematical foundation of data science. Within statistics,
Inference	inferential statistics is a set of techniques that helps us identify significant
	trends and characteristics of a data set. Not only is it useful to explore the
	data and tell a good story, it also paves the way for deeper analysis and actual
	predictive modeling. In this module, we cover several important inferential
	statistics techniques in detail.
	Topics covered:
	1
	Theory of inferential statistics
	Statistical significance
	Parameter estimation
	Hypothesis testing
	Correlation and regression
	• Exploratory data analysis

Machine Learning	Machine learning combines aspects of computer science and statistics to extract useful insights and predictions from data. Machine learning is what lets us make useful predictions and recommendations, or automatically find groups and categories in complex data sets. In this section of the course, you'll learn and use the major supervised and unsupervised machine learning algorithms. You'll learn when to use these algorithms, the assumptions they incorporate, the tradeoffs they involve, and the various metrics you can use to evaluate how well your algorithm performs.
	Topics covered:
	<ul> <li>The landscape of machine learning</li> <li>Supervised learning and the most popular algorithms, including linear and logistic regression, support vector machines, decision trees, clustering, time series and forecasting, ensemble learning with random forests and gradient boosting</li> <li>Unsupervised learning and the most commonly used clustering techniques, including k-means clustering, agglomerative hierarchical clustering, Euclidean &amp; Manhattan distances, cosine similarity, and principal components analysis</li> <li>Machine learning model evaluation and optimization</li> </ul>
Career Resources	You'll receive career material at strategic points both in the curriculum as well as via calls with our career support coaches. We'll help you create a tailored job search strategy based on your background and goals, teach you how to evaluate companies and roles, show you how to effectively get and ace interviews, and explain how to negotiate an above-market salary.
Specialization Track	Hone your skills in a specific area of expertise by choosing one of our three specialization track options.
	Option 1: The Generalist Track This track will prepare you to take on versatile data science roles across a wide variety of business domains and geographical locations. You'll build on the foundational skills you learned in the core units and tackle more advanced topics like working with Big Data and software engineering best practices.
	Option 2: The Business Insider Track The goal of this track is to teach you advanced data visualization and business analytics skills to extract actionable business insights. While you will have the ability to build predictive machine learning models, you'll primarily focus on learning how to identify insights and effectively communicate recommendations.
	Option 3: The Advanced Machine Learning Track

The goal of this track is to teach you advanced machine learning skills and
concepts, including deep learning and the deployment of machine learning
models on standard industry platforms. If you want to broaden your machine
learning skills, this track may be the right one for you.

### **Data Science Career Track Plus**

Program Length: 500 Hours

Cumulative Final Exam: Cumulative Capstone Project

Graduation Document: Certificate of Completion

**Standard Occupational Codes / Potential Employment Titles**: 15-2051.00 - Data Scientists **Sample of reported job titles:** O'NET Online title of Data Scientists represents an occupation for which data collection is currently underway.

#### **Program Description / Objectives:**

Each subject will cover a key aspect of Data Science and have a combination of materials: lectures, theory, coding exercises, reading/viewing exercises, and career related coursework.

In addition to coursework, you'll have access to double the weekly mentorship time, on demand access to TAs, and a personalized study plan that you develop with your student advisor. You will also have a 2-hour session every other Saturday to join peers in your cohort in our live virtual classroom. Led by a data scientist instructor, you'll dig deeper on challenging topics in the curriculum and engage in interactive exercises. These features are only available to our Plus students.

In addition to small projects designed to reinforce specific technical concepts, you'll complete three capstone projects focused on realistic data science scenarios that you can show to future employers.

While working on the projects, you'll:

- Identify a client's business problem
- Acquire, wrangle, and explore relevant data
- Use machine learning to make predictions
- Create real-world business impact through data storytelling

Subject Title	Subject Description
The Data	The course centers around the Data Science Method. This method involves
Science	six steps:
Method	1. Problem Identification - this step involves identifying the correct
	problem to solve and setting goals for your project. You'll learn how

	to create a SMART problem statement and form hypotheses about the
	problem. 2 Data Wrangling this step involves the collection organization and
	definition of a dataset or datasets. You'll learn how to compile data
	build local file structures create data profiles resolve formatting
	issues, and more.
	3. Exploratory Data Analysis - this step involves creating plots and
	charts to understand the relationship between data and the features of
	that data. You'll learn how to create data visualizations in Python and
	use statistics to identify patterns.
	4. Pre-processing and Training Data Development - this step involves
	standardizing and training your dataset. You'll learn how to remove
	out-of-value ranges and create testing and training subsets of your
	data.
	5. Modeling - this involves selecting, training and deploying a model to
	huild models
	6 Documentation - this involves documenting the work you've done
	and sharing your findings. You'll learn how to create a project report
	and present your findings.
The Python	Python has become a lingua franca of data science. In this unit, you'll learn
Data Science	to program in Python, how to follow best coding practices, and start using an
Stack	ecosystem of powerful Python-based tools.
	• Python data types, foundations, and standard libraries
	• Pandas $X_{i}$ $Y_{i}$ $Y_{$
SOI and	• Visualization tools in Python like matpiotilo and Seaborn
Databases	Language (SOL) to query relational database management systems. In other
Databases	words, you'll use queries to understand the data contained in databases
	words, you'n use queries to understand the data contained in databases.
	Topics covered:
	• The landscape of SQL and databases
	• Writing queries in SQL
Data	• Working with relational databases in Python
Data Storytelling	If there's one thing that most data science is not just about the math the
Storytening	algorithms and the analysis it's also about telling a good story. In real life
	data scientists don't work in a vacuum - there's always a client internal or
	external, waiting on the results of their work.
	A data story is a powerful way to present insights to your clients, combining
	visualizations and text into a narrative. But storytelling is an art, and needs
	creativity. This section will try to get your creative juices flowing by
	suggesting some interesting questions you can ask of your dataset, and will cover a few plotting techniques you can use to reveal insights
	Loover a rever protiting cominques you can use to reveal insights

Statistical Inference	<ul> <li>Statistics is the mathematical foundation of data science. Within statistics, inferential statistics is a set of techniques that helps us identify significant trends and characteristics of a data set. Not only is it useful to explore the data and tell a good story, it also paves the way for deeper analysis and actual predictive modeling. In this module, we cover several important inferential statistics techniques in detail.</li> <li>Topics covered:</li> <li>Theory of inferential statistics</li> <li>Statistical significance</li> <li>Parameter estimation</li> <li>Hypothesis testing</li> <li>Correlation and regression</li> <li>Exploratory data analysis</li> </ul>
Machine Learning	Machine learning combines aspects of computer science and statistics to extract useful insights and predictions from data. Machine learning is what lets us make useful predictions and recommendations, or automatically find groups and categories in complex data sets. In this section of the course, you'll learn and use the major supervised and unsupervised machine learning algorithms. You'll learn when to use these algorithms, the assumptions they incorporate, the tradeoffs they involve, and the various metrics you can use to evaluate how well your algorithm performs.
	<ul> <li>The landscape of machine learning</li> <li>Supervised learning and the most popular algorithms, including linear and logistic regression, support vector machines, decision trees, clustering, time series and forecasting, ensemble learning with random forests and gradient boosting</li> <li>Unsupervised learning and the most commonly used clustering techniques, including k-means clustering, agglomerative hierarchical clustering, Euclidean &amp; Manhattan distances, cosine similarity, and principal components analysis</li> <li>Machine learning model evaluation and optimization</li> </ul>
Career Resources	You'll receive career material at strategic points both in the curriculum as well as via calls with our career support coaches. We'll help you create a tailored job search strategy based on your background and goals, teach you how to evaluate companies and roles, show you how to effectively get and ace interviews, and explain how to negotiate an above-market salary.
Specialization Track	Hone your skills in a specific area of expertise by choosing one of our three specialization track options.

Option 1: The Generalist Track
This track will prepare you to take on versatile data science roles across a wide variety of business domains and geographical locations. You'll build on the foundational skills you learned in the core units and tackle more advanced topics like working with Big Data and software engineering best practices.
Option 2: The Business Insider Track The goal of this track is to teach you advanced data visualization and business analytics skills to extract actionable business insights. While you will have the ability to build predictive machine learning models, you'll primarily focus on learning how to identify insights and effectively communicate recommendations.
Option 3: The Advanced Machine Learning Track The goal of this track is to teach you advanced machine learning skills and concepts, including deep learning and the deployment of machine learning models on standard industry platforms. If you want to broaden your machine learning skills, this track may be the right one for you.

## **Data Engineering Career Track**

Program Length: 450 Hours
Cumulative Final Exam: Cumulative Capstone Project
Graduation Document: Certificate of Completion
Standard Occupational Codes / Potential Employment Titles: 15-2051.00 - Data Scientists
Sample of reported job titles: O'NET Online title of Data Scientists represents an occupation for which data collection is currently underway.

## **Program Description / Objectives:**

In addition to small projects designed to reinforce specific concepts, you'll complete two capstone projects focused on a realistic data engineering scenario that you can show to future employers.

Subject Title	Subject Description
Big Data	In this module, you will learn Big Data using the Hadoop Ecosystem. Why
Engineering	Hadoop? It is one of the most sought after data skills in the tech industry.
	You will also be learning the hottest technology in big data: Apache Spark.
	Employers including Amazon, EBay, NASA JPL, and Yahoo use Spark to
	quickly extract meaning from massive data sets across fault-tolerant
	Hadoop clusters.
	Topics Covered:
	• Learn how to use one of the most popular softwares in Big Data right
	now, using batch processing and real-time processing

	• Translate complex analysis problems into iterative or multi-stage Spark scripts
	• Use Spark programming to explore and transform massive datasets at scale by writing high performing programs
Data	In this module, you will gain one of the most in-demand market skills -
Engineering in	Cloud Data Engineering. This module introduces you to the fundamentals
the Cloud	of cloud computing and then takes you on an hands-on journey of
the cloud	designing data intensive applications using various cloud components
	acongining data intensive apprearions asing various croad components.
	Topics Covered:
	• Understand the core concepts of cloud computing (Compute,
	Networking, Security, Data security in-transit and at-rest)
	• Designing highly available and scalable cloud solutions for Data
	Engineering using Azure (Data Factory, CosmosDB, Azure SQL DW,
	Azure HDInsight, Databricks)
Data Pipelines	As a Data Engineer, designing robust data pipelines is one of your core
and	responsibilities and in most cases, the end result of your engineering
Orchestration	activities. In this module, you will learn an open-source platform to
	programmatically author, schedule, and monitor workflows - Apache
	Airflow. You will learn to design high performing data pipelines and make
	sure they run well by monitoring the underlying resources.
	Topics Covered
	<ul> <li>Design robust data pipelines using Apache Airflow</li> </ul>
	<ul> <li>Monitoring the health of your data and pipeline using various tools and</li> </ul>
	techniques including open source monitoring tools, custom dashboards,
	and Cloud pipeline monitoring
Data	You will learn how to use Docker, a widely used platform that developers
Virtualization	and administrators use to build, ship, and run distributed applications.
and	Docker allows you to create containers that run both the application and all
Container-based	of its dependencies in a self-contained way on your operating system,
Applications	requiring minimal disk space compared to a virtual machine. Docker
	containers are highly portable and allow you to run the same application on
	a personal computer or the cloud, and you can simultaneously run multiple
	instances of the same container.
	You will also learn about Kubernetes, a production-grade system for
	managing complex applications with many different running containers
	Kubernetes goes hand in hand with Docker and will allow you to manage
	the full lifecycle of containerized applications across multiple machines.
	Topics Covered:
	• Convert your applications and data processing pipelines to container
	based applications
	Develop your own Docker images using Dockerfiles and practice
	Docker Compose

	• Orchestrate containers to deliver scalable and reliable performance using Kubernetes
Streaming Data and APIs	In this module, you will learn how to use Apache Kafka - which is used in production by over 33% of the Fortune 500 companies such as Netflix, Airbnb, Uber, Walmart and LinkedIn.
	It is the leading distributed data streaming enterprise big data technology - which we will integrate with tools that we have learned previously to make use of streaming data in your data pipelines. We also learn to design and test APIs in order to exchange data between applications.
	Topics Covered:
	• Design pipelines to process Real-time Streams using Apache Kafka and Kafka Streams API
	<ul> <li>Design and test APIs for robust performance and security</li> <li>Learn some API best practices using real-world examples (e.g. graceful degradation, HTTP verbs, Request validation, Logging, exception handling, etc.)</li> </ul>
Interacting with Data	This section helps you build a strong foundation in data skills Data Warehousing and Data Modeling which are important in order to decide the best way to store and retrieve data.
	You will be learning in-depth SQL, which forms the cornerstone of all relational database operations. The ability to write SQL queries is essential for those who develop database applications.
	<ul> <li>Topics Covered:</li> <li>How to explore large collection of business-related historical data that would be used to make business decisions</li> <li>You'll learn how to build and organize complex queries to make them more readable with the WITH clause, and how to use set operations such as UNION, UNION ALL, EXCEPT, and INTERSECT to combine tables.</li> </ul>
Coding for Data Engineering	Algorithms are at the center of almost any programming job. In the world of data engineering, you will likely need to answer questions about efficient algorithms in any interview. We'll make sure you ace the interview, and have the programming chops needed for the job. You'll learn how to write efficient Python code, a critical skill for any data analyst, data scientist, or data engineer. You'll learn concepts such as functional programming, closures, decorators, and more. You'll gradually learn everything you need to do to write an end-to-end data pipeline with a scheduler in Python. By the time you're finished, you'll be able to describe the difference between imperative and functional programming and approach problems in both ways.

We'll give you a strong foundation for the types of programming you'll be doing as an engineer taking you through comprehensive Python, Data Structures, and Algorithms tutorials and solidifying the concepts with hands-on exercises.
<ul> <li>Topics Covered:</li> <li>Get you up to speed with Python by creating multiple data engineering related projects like data wrangling, web scraping, data parsing, and streaming data from sources like Twitter</li> <li>The performance difference between data structures such as hash tables, stacks, queues, and more.</li> <li>Using popular Algorithms (like Greedy techniques, Divide and Conquer, Dynamic programming, Network flow) to improve application performance</li> <li>Master essential GIT skills to develop collaboratively in team</li> </ul>

## ML Engineering Career Track

Program Length: 500 Hours

Cumulative Final Exam: Cumulative Capstone Project

Graduation Document: Certificate of Completion

**Standard Occupational Codes / Potential Employment Titles**: 15-2051.00 - Data Scientists **Sample of reported job titles:** O'NET Online title of 15-2051.00 - Data Scientists represents an occupation for which data collection is currently underway.

## **Program Description / Objectives:**

In this course, you'll design a machine learning/deep learning system, build a prototype and deploy a running application that can be accessed via API or web service.

In addition to small projects designed to reinforce specific technical concepts, you'll build a realistic, complete, ML application that's available to use via an API, a web service or, optionally, a website.

While working on the projects, you'll:

- Collect, wrangle, and explore project-relevant data
- Build a machine learning or deep learning prototype
- Scale your prototype
- Design deployment solutions and deploy your application to production

This Machine Learning bootcamp is designed for people with strong software engineering skills and industry experience, who want to become Machine Learning Engineers.

Subject Title	Subject Description
The Machine Learning Engineering Stack	<ul> <li>Throughout this course, you'll be introduced to a variety of tools and libraries that are used in the data science and machine learning world. These include everything from ML libraries to deployment tools. There will also be refreshers on software engineering best practices and foundational math concepts that every ML Engineer should know.</li> <li>The Python Data Science Stack: Pandas, scikit-learn, Keras, TensorFlow</li> <li>Data engineering tools: Spark/PySpark, Luigi, Containers, AWS</li> <li>Software engineering tools: Continuous integration, version control with Git, logging, testing, and debugging</li> <li>Data structures and algorithms refresher and optimizing Python to write faster code</li> </ul>
Data Wrangling at Scale and Statistics for AI	No matter what kind of data you're working with, collecting, cleaning up and managing that data will be a critical part of your work. In this unit, you'll learn to collect data at scale from APIs, real-time systems, and websites. You'll also learn to transform this data efficiently and effectively for ML algorithms to crunch down the pipeline. • Collect data at scale from APIs, real-time systems, and websites.

	• Transform this data efficiently and effectively so that ML algorithms can
	Crunch it down the pipeline.
	from data.
Foundations	Machine Learning combines aspects of computer science and statistics to
of Machine	extract useful insights and predictions from data. In this unit, we'll cover the
Learning	most important machine learning algorithms (supervised and unsupervised).
	You'll learn when these algorithms are useful, the assumptions they
	incorporate, the tradeoffs they involve and the various metrics you can use to
	evaluate how well your algorithm performs. Most importantly, you'll learn to
	implement them at scale.
	• Common algorithms like linear regression, logistic regression, and
	statistical modeling
	Advanced algorithms like Decision Tree, Random Forest, gradient
	boosting, and K-means clustering
	Model selection, evaluation, and interpretation concepts like
	regularization, the Curse of Dimensionality, and cross-validation
	Supervised and unsupervised learning
	• Tools: scikit-learn, SparkML, Auto-ML systems
A Deep Dive	Deep learning is a set of advanced machine learning techniques that power
into Deep	many of today's most cutting edge applications, including image recognition,
Learning	machine translation, self-driving cars, speech recognition, and more. It is
	based on neural networks, which are loosely inspired by the structure of the
	learning and build real world applications
	icarining and build real-world appreations.
	Overview of Neural Networks, Backpropagation and foundational
	techniques
	Principles of Deep Neural Networks
	• Common Deep Neural Network configurations e.g. RNNs, CNNs, MLPs,
	Generative Deep Learning and GANs
	<ul> <li>Engineering Frameworks: Keras, TensorFlow, PyTorch</li> </ul>
Natural	NLP uses techniques from computer science, linguistics, and machine
Language	learning to process human language, typically in the form of unstructured
Processing	text. In this unit, you'll learn the basics of text data, how to clean and process
_	it, and how to extract insights from text sources and conversations. We'll walk
	you through a detailed case study to solve a real NLP problem using Deep
	Learning and other techniques.
	• How to work with text and natural language data
	NLP in Python, using common libraries such as NLTK and spaCy
	Representing language: BOW, TF-IDF, word embedding models
	(word2vec, GloVe, FastText, and StarSpace)
	Deep Learning techniques for NLP

	Chatbots and other modern NLP applications
AI Tutorial:	Image processing has taken off in the last decade due to the proliferation of
Computer	images on social media sites such as Facebook and Instagram. Recognizing
Vision	objects such as cars, and individuals from images is a hard problem, but AI techniques have made huge strides. In this case study we'll go through image
	processing techniques and solve a real image processing problem. Computer
	vision and image processing concepts will be spread across two units — one
	that dives into the theory behind these concepts and another that works
	through a hands-on tutorial that will help you put into practice everything
	you've learned.
	Foundations of commutantizion and image mesoscing
	• Foundations of computer vision and image processing Image elustering and elegatification with K means, multitask elegatification
	• Intage clustering and classification with K-means, multitask classificity, and GANs
	<ul> <li>Object detection and image segmentation with algorithms</li> </ul>
	<ul> <li>Applications and trends in computer vision</li> </ul>
Deploying AI	This is the unit where the rubber meets the road. You'll take everything you
Systems to	have learned so far: the tools, techniques, and the libraries and deploy a
Production	large-scale AI system.
	• Common tools and techniques to build large-scale AI applications
	1001S 10F Duffding quality APIS     Droductioning models with CL and CD
	Productionizing models with CI and CD     Table like Defendence of Speeds for model and filled
	• 1001s like PySpark, PyTorch, and Spark for model production

## **UX Career Track**

Program Length: 480 Hours
Cumulative Final Exam: Cumulative Capstone Project
Graduation Document: Certificate of Completion
Standard Occupational Codes / Potential Employment Titles: 15-1255.00 - Web and Digital
Interface Designers
Sample of reported job titles: Technology Applications Engineer, Web Architect, Web Design
Specialist, Web Designer, Web Developer, Webmaster

#### **Program Description / Objectives:**

Each subject in this course will cover a key aspect of user experience and will feature a combination of materials, including videos, articles, hands-on design projects, and career-related coursework.

In addition to mini-projects to reinforce specific design concepts, you'll complete three portfolio projects, including the capstone project. This will be the highlight of your portfolio.

While working on the projects, you'll:

- Identify a customer problem to solve
- Conduct competitive research
- Sketch, design, and build a prototype
- Perform usability testing and identify improvements

You'll be matched with a real company to complete a 40-hour industry design project that solves a business problem.

This UX course is for people who demonstrate an aptitude toward problem solving, have strong communication and collaboration skills, and have a background in adjacent fields.

Subject Title	Subject Description
Design Thinking	<ul> <li>Examine the philosophy from which user-centered design (UCD) and many innovation frameworks have emerged: design thinking. Grounded in empathy and a hands-on, iterative approach to problem solving, design thinking is the mindset you'll use to create effective user experiences. The key aspects of design thinking include:</li> <li>Empathy: observe and engage the people you're designing a product for</li> <li>Problem definition: a good solution depends on addressing the right problem</li> <li>Ideation: a good solution depends on addressing the right problem through divergent and convergent thinking, consider many possible solutions</li> <li>Prototyping: test those possible solutions</li> <li>Testing: get feedback from real people that will help you improve your ideas and create solutions</li> </ul>

User Research	User research is central to UX design. When you engage users and understand their experience, you can move from being aware of a problem to understanding why the problem exists and what users want to see resolved. There are many different user research tools; this section will explore the most effective of them. Topics include: user research methods, research plans, recruiting users through screener surveys, diary studies, and interviews.
	your user research skills and then apply those skills to your capstone project.
Synthesis and Presentation	Understanding the data you collect during the research phase will help you to make decisions that will reflect the interests of your users. In this unit, you'll learn the different methods you can use to synthesize research in order to keep your designs focused on your user.
	personas, problem statements, journey maps, and research presentations.
Ideating and Designing	<ul> <li>This section (part of the UCD design phase) is all about getting your design hands dirty, so to speak. Here are some of the things you'll dive into:</li> <li>Brainstorming solutions to the problem you're trying to solve (for your capstone project)</li> <li>Learning how to write and map user stories that capture the intent of personas</li> <li>Learning the fundamentals of information architecture (to help you create and express your capstone project's structure and flow)</li> </ul>
Sketching, wireframing and UI	In this section of the UCD design phase, you'll bring your designs to life, first as sketches and then through wireframing. You'll also be introduced to several design tools, including Sketch and Adobe XD, learn how to conduct a guerilla usability test to validate your sketches, and learn how to apply interaction design principles to your designs. You'll also explore the world of user interface design in order to make your designs more accessible and engaging.
Prototyping and Presenting	In the final phase of the UCD process, evaluation, you'll create a prototype of your capstone project's red routes. In this section, you'll also learn when, why, and how to use different evaluative testing methods to improve your project. You'll also put together a comprehensive case study of your capstone journey and give a presentation about your project.
Design Sprint	Like most creative professions, your work as a UX designer is often going to be interrupted by urgent, unexpected projects. Don't worry, though—after working through this unit, you'll be prepared! In this unit, you'll use the design sprint process to sharpen your skills. You'll work through:

	• End-to-end design while working under tight deadlines
Special Topics	This unit explores topics like psychology and empty states that will take your designs from good to great by teaching you how to craft designs that lead to increased engagement, continued use, and conversion.
	<ul> <li>Topics include:</li> <li>Onboarding flows</li> <li>Empty states</li> <li>Strategy and service design</li> <li>The future of UX</li> </ul>
Industry Design Topic	<ul> <li>While working on the industry design project, you'll:</li> <li>Collaborate directly with a client for four weeks</li> <li>Dive deeper into an area of the UX design process you're especially interested in: competitive research, user research, usability testing, redesign recommendations</li> <li>Set yourself apart from other bootcamp graduates with a personalized portfolio</li> </ul>

## **UI/UX Design Career Track**

Program Length: 660 Hours

Cumulative Final Exam: Cumulative Capstone Project

Graduation Document: Certificate of Completion

**Standard Occupational Codes / Potential Employment Titles**: 15-1255.00 - Web and Digital Interface Designers

**Sample of reported job titles:** Technology Applications Engineer, Web Architect, Web Design Specialist, Web Designer, Web Developer, Webmaster

### **Program Description / Objectives:**

The demand for UI/UX designers is at an all-time high. Companies are constantly seeking out digital opportunities to improve their product experience. As a result, competition is growing amongst employers for designers who can build products that are both beautiful and easy to use. Today, UI and UX designers enjoy high job satisfaction, varied creative challenges, a chance to work with ever evolving technologies, and great pay.

Springboard's UI/UX Design Career Track is designed to train you on job ready UI/UX skills, including core design principles, tools and best practices. You'll work on 4 portfolio projects covering different types of design techniques that you'll use as a UI/UX designer. By the end of the course, you'll have a complete UI/UX skill set to succeed in any design role.

The UI/UX Career Track is for people who demonstrate strong visual, creativity and communication skills. All backgrounds are welcome.

While working on the projects, you'll:

Capstone 1

- Develop an understanding and practice the end-to-end design process (discovery/design/validation)
- Conduct and synthesize secondary and direct user research
- Identify a clear problem statement
- Ideate possible solutions
- Build low fidelity
- Develop a style guide
- Design high fidelity wireframes
- Conduct usability testing
- Present solutions and design journey to stakeholders

Design Sprint

- Learn about different design processes that are commonly used by agile teams, including Lean UX and Google Ventures (GV) design sprints
- Learn about and experience a modified version of the GV design sprint
- Move through the design process in a time-constrained format

Capstone 2

• Simulate what it's like to work in a team that is relying on you to hit deadlines

- Learn to make strategic and intentional decisions under constraints (including making choices about which tools in your toolbox you use because you can't use them all)
- Become proficient at time-boxing your work
- Become adept at working with business goals

• Bolster your ability to work independently and prep for your entrance into the job market Industry Design Project

- Gain experience working with a real company
- Provide your insights and support to develop new products and improve their existing solutions using your knowledge and expertise in competitive research, user research, usability testing, redesign and/or redesign recommendations, resigning mockups and UI
- Apply all of your course learnings and hone your professional and collaborative skills
- Become proficient at time-boxing your work
- Become adept at working with business goals
- Bolster your ability to work independently and prep for your entrance into the job market

Subject Title	Subject Description
UX Foundations	Grounded in empathy and a hands-on, iterative approach to
	problem-solving, design thinking is the mindset designers like you will use
	to create effective user experiences. This section of the course will
	introduce you to the core stages of design thinking. You'll also learn about
	UI/UX design roles and the skills every designer needs to be successful.
	Topics Covered:
	• UI and UX Design Roles and the Skills You Need to Land Them
	• UI vs. UX Design
	• Design Tools: Sketch, Figma, and Adobe XD
	• The Core Stages of Design Thinking
	o Empathy
	o Define
	o Ideate
	o Prototype
	o Test
	<ul> <li>Divergent and Convergent Thinking</li> </ul>
	Brainstorming and Gamestorming
	Observational Empathy
Conducting	At its core, design is about solving problems, so identifying the problem
Research	and the user you're solving it for will help you to create an exceptional
	solution. When you begin a new design project, you il frequently need to
	conduct research to understand the problem space you re working in and
	form a hypothesis. You if also need to conduct user research by talking
	with users and synthesizing their reedback to understand why the problem
	exists and what users want to see resolved. Of course, once you ve
	through the use of tools like amount more and personal before presenting
	unough the use of tools like empathy maps and personas before presenting
	your maings to stakenoiders.

	<ul> <li>Topics Covered:</li> <li>UX Research Methods and How to Choose the Right One for Your Work</li> <li>Generative Research</li> <li>Secondary Research</li> <li>Competitive Research</li> <li>Qualitative Research</li> <li>Qualitative Research</li> <li>Competitive Usability Testing</li> <li>Usability Heuristics</li> <li>Research Plans</li> <li>Recruiting Users with Screener Surveys</li> <li>Conducting Interviews</li> <li>Synthesizing Your Research</li> <li>Empathy Mapping</li> <li>Creating Personas</li> <li>Writing Problem Statements</li> <li>Creating Journey Maps</li> <li>Presenting Your Synthesized Research to Stakeholders</li> </ul>
Designing,	In this section of the course, you'll learn how to make design decisions and
Ideating, &	Ideate a variety of solutions to the problem you've identified through your
Architecture	will help you identify the functional needs of your product. Once you've
	identified a solution, you'll use information architecture best practices to
	figure out how your user will move through and interact with your product.
	Topics Covered:
	Solution Ideation
	Creating User Stories
	Information Architecture
	o Navigation
	o Shemaps o User Flows
	<ul> <li>Content through Card Sorting</li> </ul>
Foundations of	From the beginning of the course, you'll build out your UI design toolbox
UI Design	with the help of UI exercises woven throughout the course. In this section,
	you'll begin to apply these skills to your designs, digging deep into the
	$\mu$ number interface (III) design is what makes a design engaging and
	delightful to use it inspires a user to feel a particular way when engaging
	with a product. Using typography, colors, and lavouts, you can inspire
	feelings of trust and delight as users navigate your site or app. You'll
	develop style guides that define the visual language of your projects.
	Topics Covered:

	Visual Principles
	o Balance
	o Scale and Proximity
	o Alignment
	o Visual Hierarchy
	o Repetition
	o Contrast
	o Negative and Implied Space
	o Color Theory
	UI Principles
	o Usability Heuristics
	o Ease-of-Use
	o Consistency
	<ul> <li>Progressive Disclosure</li> </ul>
	<ul> <li>Reducing Cognitive Load</li> </ul>
	o Information Hierarchy
	o Space Distribution
	o Discoverability
	• Feedback Error and Success Responses
	• UI Elements
	• UI Patterns
	• Material and iOS Guidelines
	Interaction Behaviors and Principles
	• Designing for the Different States
	• Understanding Brand Platforms
	• Using Brand Platforms to Define a Product's Visual Style
	Developing Design Systems
	• Style Guides
	0 L0g0 Color Dolotton
	o Color Palettes
	o Iconography Photography and Imagory
Skatahing &	Creating low fidelity design sketches is the first step in the march towards
Wiroframing	high fidelity designs. Skotching is an easy affordable way to get your ideas
wiichanning	out of your head and onto paper, where you'll more easily be able to see
	the changes or adjustments that you'll need to make. Once you've created
	sketches of your product the next step is to create wireframes. Wireframes
	are often digitized versions of your sketches. Creating a low fidelity digital
	version of your product will enable you to identify critical design decisions
	that you need to make while still offering enough flexibility that you don't
	need to fixate on perfecting your designs yet.
	Topics Covered:
	Sketching Principles
	• Sketching Red Routes

	Guerilla Usability Testing
	• Responsive Design
	• Wireframing
	Creating Wireflows
High-Fidelity Design	Once you have your style guide sorted out and a series of wireframes to work with, it's time to create high-fidelity mockups of your design. However, this doesn't just mean making your designs look beautiful (which you'll do — don't worry!); it also means making your designs accessible and inclusive so that everyone can use your product. You'll refine your style guide as you work on your screens and you'll also learn how to create animations that align with your style guide and brand platform.
	<ul> <li>Topics Covered:</li> <li>Inclusive Design and Designing for Accessibility</li> <li>Building High-Fidelity Mockups</li> <li>Designing Efficiently with Tools</li> <li>Interaction Patterns</li> <li>Animation tools</li> <li>Designing animations and interactions</li> </ul>
Prototyping & Testing	As any designer will tell you, prototyping and testing are essential tools used to identify problems and validate design decisions. In this section of the course, you'll build a clickable prototype, learn how to set up and facilitate usability test sessions, and synthesize your findings to determine if you need to redesign your prototype. Building a Prototype Conducting Usability Tests o Remote Usability Testing Other Evaluative User Research Methods Synthesizing Test Findings
	Prototype Iteration
Communication Best Practices	<ul> <li>As a UI/UX designer, you'll be in frequent communication with developers, team members, clients, and other project stakeholders so being able to collaborate and be a team player is essential. It's also important to be able to share information about the work you've done and tell a compelling story about your designs. This section of the course will teach you how to effectively communicate with different audiences.</li> <li>Topics Covered: <ul> <li>Collaborating and Communicating with Developers</li> <li>How to Prepare for Handing Off Designs</li> <li>Handoff Tools like Zeplin</li> <li>Presenting Your Work to Different Stakeholders</li> <li>The Components of an Effective Presentation</li> <li>Creating a Case Study</li> </ul> </li> </ul>

	Email and In-Person Communication
	Prioritization and Time Management
Special Topics	This course will go beyond the basics of UI/UX design to take on some of
	the specialized skills that hiring managers find highly valuable. You'll use
	these specialized skills to show off your knowledge and experience with
	the latest trends in UX and UI design.
	<ul> <li>Product Types: Best practices and solutions</li> </ul>
	<ul> <li>Ecommerce &amp; Browsing</li> </ul>
	<ul> <li>Social Media &amp; Messaging</li> </ul>
	<ul> <li>Dashboards &amp; Data Design</li> </ul>
	o Music & Media
	<ul> <li>Business-to-Business and Business-to-Consumer Products</li> </ul>
	The Psychology of Design
	o Persuasive Design
	o Anticipatory Design
	o Gamification and Behavior Change
	o Dark Patterns
	• The Business of UX
	o The Product Life Cycle
	o Working with Constraints
	<ul> <li>Competitors and Success Criteria</li> </ul>
	o Competitive Research

## Software Engineering Career Track

Program Length: 790 Hours

Cumulative Final Exam: Cumulative Capstone Project

Graduation Document: Certificate of Completion

**Standard Occupational Codes / Potential Employment Titles**: 15-1252.00 - Software Developers; 15-1254.00 - Web Developers

**Sample of reported job titles:** Technology Applications Engineer, Web Architect, Web Design Specialist, Web Designer, Web Developer, Webmaster, Application Developer, Application Integration Engineer, Developer, Infrastructure Engineer, Network Engineer, Software Architect, Software Developer, Software Development Engineer, Software Engineer

#### **Program Description / Objectives:**

The demand for software engineers is at an all-time high. Companies are constantly seeking out developers to build new products and applications, or to improve existing ones. As a result, competition is growing amongst employers for developers who can build products that are both powerful and easy to use. Today, software engineers enjoy high job satisfaction, varied problem solving challenges, a chance to work with ever-evolving technologies, and great pay.

Springboard's Software Engineering Career Track is designed to train you on job-ready web developer skills, including core programming languages, tools, and technologies. You'll work on 4 portfolio projects covering the front end, back end, and full stack. By the end of the course, you'll have a complete programming skill set to succeed in a web development role.

The Software Engineering Career Track is for people who already have basic skills in HTML, CSS, and JavaScript. All backgrounds are welcome.

While working on the projects, you'll:

## **Cumulative Project 1 (Hacker News Clone)**

- Get students comfortable reading external documentation
- Make sure they can successfully query and route an external API on the client-side
- Gives students hands-on experience with DOM Manipulation with the jQuery library
- Build basic authentication and permissions
- Gain experience with object-oriented programming and array methods in JavaScript
- Use Twitter Bootstrap for CSS styling
- GitHub experience

#### **Twitter Clone**

- Get students comfortable working with a large codebase that contains unfamiliar code, and reading the documentation for that codebase
- Teach students how to add new back-end functionality to an existing codebase like logout and adding WTForms to user profiles
- Create and configure a virtual environment in Flask
- Create and populate a database through the command line
- Conceptually understand existing security authorization and authentication
- Implement LIKES for Warbler's version of Tweets
- Test all functionality
- Fix back-end bugs that other programmers have left in

# • GitHub experience

# **Capstone Project 1**

- Students learn how to create a functional database driven website from an external API
- Give students freedom to explore and work with existing APIs and implement a website of their choice
- Set up a PostgresSQL database and create their own database models through SQLAlchemy
- Use Flask and Python and set up routes for HTTP requests
- Test all of their functionality
- Give students experience working in a development environment
- Deploy sites to production with Heroku
- Give students experience creating a full-stack application with a Python back-end and JavaScript front-end they designed themselves
- CRUD functionality
- Functionality that goes beyond CRUD
- GitHub experience

# **Cumulative Project 2 (Jobly)**

- Create an API through Node, Express, and PostgreSQL
- Set up a database and configure the API to respond to various requests routes like GET, POST, and PATCH with different behavior and data
- Build off of previously completed sections of the project and update routes for each new section
- Work with one-to-many and many-to-many relationships between tables and ensure the API returns JSON that reflects these relationships
- Add in authentication and authorization, including an API key
- Unit testing
- Integration testing
- GitHub experience

# **Capstone Project 2**

- Allow students to brainstorm ideas and create more complex full-stack website database-driven website off an external API with the entire technology stack they've learned in the course
- Allow students with a larger degree of freedom than the first capstone
- Students typically use React for the front end and Node/Express for the back-end of their application, but a Python/Flask framework is also allowed
- Set up a database and create database models with one-to-many and many-to-many relationships
- Use ReactJS to show competency with modern web libraries
- Gain experience with asynchronous requests
- Configure authorization, authentication, and permissions
- CRUD functionality
- Functionality that goes beyond CRUD
- Create an API for the site and configure the routes for the API
- Test every piece of functionality
- Integration testing
- GitHub experience

Subject Title	Subject Description
Web Development	We begin the course by introducing you to the fundamentals of web
Fundamentals	development. You'll learn about the differences between front-end
	and back-end web development, the languages and technologies most
	commonly used in industry, and why you would use one language
	over another.
	Topics Covered:
	Demystifying Web Development
	<ul> <li>Frontend vs Backend</li> </ul>
	Web Development Languages
Intermediate	JavaScript, known as "the programming language of the web," will
JavaScript, DOM	provide the backbone of the web development stack. We'll start with
Manipulation, and	a refresher of some JavaScript fundamentals before moving on to
Event Driven	more intermediate content, such as leveraging JavaScript to begin
Programming	building sophisticated, event-driven applications using the DOM.
	Topics Covered:
	• JavaScript fundamentals refresher
	Gallback functions
	• Writing your own callback functions
	Selecting Elements
	o What is the DOM?
	o querySelector / getElementById
	Manipulating the DOM
	o Changing text and styles
	o Dom traversal
	• Working with multiple elements
	• JavaScript Events
	o Different ways to add event listeners
	o Event object
Developer	Before starting with any web development, it's essential to develop a
Fundamentals	sound foundation in how to work as a developer. You'll be using
(Git/Terminal/Github)	Terminal and Git every single day as a professional developer so
	understanding these topics is essential.
	Topics Covered:
	Terminal Fundamentals
	• Navigating in the terminal
	• Creating files and folders
	• Git and GitHub Fundamentals
	0 What is the creating repositories local workflow
	o Branching
----------------------------------	--
	o Merge conflicts
	o What is GitHub + signing up for an account
	o Cloning / Pushing to Github
Modern JavaScript and Testing	It's time to dive deeper into JavaScript. You'll start by learning one of the most fundamental skills that any developer needs to know: testing. As strange as it might sound now, you'll learn to write code that tests your code! You'll continue by learning the 5 latest features in the language and some of the trickier aspects, making sure your knowledge of JavaScript is at a professional level. These trickier parts will take a bit more time to master, but you'll see them everywhere as you learn more advanced libraries including React.
	Topics Covered:
	Testing with Iasmine
	o Unit testing
	o Jasmine with HTML
	Advanced array methods
	o forEach, map, filter
	o reduce
	o some, every
	o find, findIndex
	• ES2015+
	o Arrow functions
	o Rest / spread
	o Object enhancements
	0 Destructuring Object Oriented Programming
	• Object Oriented Programming
	0 ES2015 Classes
	o 'this'
	o `hind`
How the Web Works,	o 'bind' Now that you've gotten past some of the tougher parts of JavaScript,
AJAX, and JQuery	it's time to learn about how it fits in the full stack web development ecosystem. So far, you've been using JavaScript to manipulate data on a web page, but JavaScript can also be used to fetch external data with a series of technologies known as AJAX. Before you dive deep into AJAX, we'll get you comfortable with how the web works and how to make HTTP requests as well as one of the tougher topics in JavaScript, asynchronous code
	Topics Covered:
	• jQuery
	o Dom manipulation
	o Selector caching

	o Event delegation
	• How the Web Works
	o HTTP
	o DNS
	o GET vs POST
	• async/await
	• Asynchronous code
	• Async functions
	• AIAY with axios
	• AJAA with axios $\sim \Lambda I \Lambda Y$
Duth on Eurodom ontolo	0 AXIOS
Python Fundamentals	Now that you re comfortable writing front-end code, let's move to the backend. We'll start by introducing you to the second language in this course, Python. You'll get comfortable with the language just like you did with JavaScript and see some of the key differences and similarities between Python and JavaScript.
	Topics Covered:
	<ul> <li>Python Introduction</li> <li>Data Structures In Python</li> <li>Intermediate Python</li> <li>Object Orientation in Python</li> </ul>
Flask Fundamentals	Once you have a good grasp of Python, we'll move on to building web applications using the highly popular web framework Flask. You'll build full stack applications and learn about essential backend concepts like server-side templates, rendering, redirecting, cookies, sessions, and much more.
	Topics Covered:
	• Flask Fundamentals
	Server Side Templates with Jinja
	• Flask Testing
	Cookies and Sessions
SQL and PostgresQL	SQL is foundational towards building any relational database backed application and has been the standard for over 40 years. In this section we'll get started working with databases and SQL. You'll master the fundamental commands and then get comfortable with aggregates, joins, and data definition language.
	Topics Covered:
	• What is SQL
	Relational Databases
	Installing Postgres

• SELECT
• WHERE
Aggregate Functions
• DDL + Joins
• DDL
• Joins
Joins Continued
Now that you have a solid understanding of full-stack development and databases, we'll move onto building more complex web applications. You'll be introduced to an ORM called SQLAlchemy which allows you to use your knowledge of SQL but handle database operations in Python. You'll start building JSON APIs and secure applications with hashed passwords and authentication and authorization. Finally, you'll learn how to make HTTP requests from the backend, which will allow you to interact with most APIs to fetch and send data to and from external data sources.
Topics Covered:
<ul> <li>SQLAlchemy</li> <li>Building JSON APIs</li> <li>Making API Requests with Python and Flask</li> <li>Authentication with Cookies and Sessions</li> <li>Intermediate GitHub and Terminal</li> </ul>
Now that you're comfortable building backend applications in Python, let's revisit JavaScript, but on the backend! You'll learn about Node.js, one of the most popular technologies on the web and how to
use it s asynchronous model to build performant applications.
Topics Covered:

	• The request / response cycle with Express
	o Testing with Supertest
	o Error handling with Express
	Routing and Middleware
	• Express Router
	<ul> <li>Using middleware</li> </ul>
	a Testing middleware
	<ul> <li>Dendering templates with Pug (or Nunchucks / EIS)</li> </ul>
	• Kendering templates with Fug (of Nunchucks / EJS)
	0 what are server side templates
	o How to use Pug
Building Full Stack	Take your knowledge of SQL and connect it with Node and Express
Applications with	using the pg module. You'll continue to explore some more of the
Node and Express	advanced features of Express including authentication and
	authorization using JSON Web Tokens.
	Topics Covered:
	Node-pg introduction
	<ul> <li>Getting started with Node-pg</li> </ul>
	o The Node / SQL Ecosystem
	<ul> <li>Advanced Object Oriented patterns</li> </ul>
	o Advanced Object Oriented patterns
	o Testing OO Code
	o Further Study: Knex / Sequelize / ORMs
	Building and testing ISON APIs
	o BEST
	o Testing A PIs
	• Documenting APIs
	<ul> <li>Documenting Ai is</li> <li>Authentiation and Authorization with herent and IWTs</li> </ul>
	• Authentication and Authorization with berypt and 5 w 1s
	o Storing passwords securely with berypt
	o Using JW Is for Auth
	• Further Study - Socket.10
	• Further Study - Mongo
	• Further Study - Web Scraping
ReactJS	Now that you've built a few full stack applications, it's time to move
Fundamentals	back to the frontend and learn a framework. We'll be focusing on one
	of the most popular and rapidly growing frameworks, React.js.
	Written by Facebook, this framework allows for building robust
	applications that can scale easily.
	Topics Covered:
	React Introduction
	o What is React
	o Webpack / Babel / JSX

	o Create React App
	Props
	o What are props
	o Default props
	o Proptypes
	o props children
	• State
	• What is state?
	o useState
	o useState natterns
	• Testing with Enzyme
	• Events and Forms
	React events intro
	• Forms with Popot
	o Forms Will Keat
Internet dista DesetIC	0 Testing Events and Forms
Intermediate ReactJS	Once you have a solid grasp on what React is and how to build components and simple applications, it's time to layer on more complexity with a few additional built-in hooks. You'll learn how to include side effects in your components with useEffect, manage state with useContext, and handle complex state with useReducer.
	Topics Covered:
	<ul> <li>Lifecycle methods / useEffect <ul> <li>useEffect Introduction</li> <li>useEffect on mount</li> <li>useEffect on update</li> <li>useEffect on unmount</li> </ul> </li> <li>Context API / useContext <ul> <li>What is Context</li> <li>useContext</li> </ul> </li> <li>useReducer <ul> <li>What is a reducer</li> <li>useReducer</li> <li>useReducer + useContext for shared global state</li> </ul> </li> <li>Writing Custom Hooks</li> <li>React Router <ul> <li>Using React Router</li> <li>Link and NavLink</li> <li>Redirect / Switch</li> </ul> </li> </ul>
Redux	As your React applications grow, managing global state can become quite a challenge. While the Context API is an excellent option, sometimes you need a bit more when scaling. Redux is another option for state management that has the ability to scale to massive codebases including those at Facebook.

	Topics Covered:
Data Structures and Algorithms	<ul> <li>Redux Introduction         <ul> <li>What is Redux</li> <li>Vanilla Redux</li> </ul> </li> <li>React/Redux         <ul> <li>Integrating React with Redux</li> <li>React/Redux hooks</li> </ul> </li> <li>Async Redux         <ul> <li>Async redux introduction</li> <li>Redux thunk</li> </ul> </li> <li>Not only are Data Structures and Algorithms essential for succeeding in interviews, they are also an important topic for understanding how to architect applications and make the right tradeoffs regarding performance</li> </ul>
	<ul> <li>Topics Covered:</li> <li>Big O Notation</li> <li>Arrays, Linked Lists, Stacks Queues</li> <li>Recursion</li> <li>Hash Tables</li> <li>Trees and Heaps</li> <li>Graphs</li> <li>Sorting and Searching Algorithms</li> </ul>

## Cyber Security Career Track

Program Length: 380 Hours
Cumulative Final Exam: Cumulative Capstone Project
Graduation Document: Certificate of Completion
Standard Occupational Codes / Potential Employment Titles: 15-1212.00 - Information Security Analysts
Sample of expected job titles: Information Security Officer, Information Security Specialist, Information Systems Security Analyst, Information Systems Security Officer (ISSO), Information Technology Security Analyst, Systems Analyst, Systems Analyst

## **Program Description / Objectives:**

With data migrating to the cloud and growing geopolitical concerns around security and privacy, many companies are investing in their cybersecurity expertise. They are looking to protect and defend their data through the identification, analysis, and mitigation of threats.

This course is designed to train you on job-ready cybersecurity analysis skills, including the core mindset, tools, and best practices. You'll work on 30+ technical labs, 30+ mini-projects, and 1 capstone project covering end-to-end analyses and processes you will work on as a cybersecurity analyst. The course covers topics such as threat modeling, host-based security, network security, identity and access management, application security, network scanning, packet capture analysis, and vulnerability assessment. Additionally, the course includes the use of tools such as Wireshark, Splunk, Kali Linux, and Nmap.

Subject Title	Subject Description
Cybersecurity Fundamentals	<ul> <li>This unit introduces you to the fundamentals of cybersecurity through a hands-on journey of recognizing basic IT security threats and various ways to mitigate those threats. This involves an exploration of red-team (offensive security professionals) vs. blue-team (defensive security professionals) spheres of work, setting you up for the first, user-facing domains of cybersecurity: host-based security.</li> <li>Topics Covered: <ul> <li>Threat actor types and attributes (hackers, DarkNet, social engineering, etc.)</li> <li>Three-legged stool (CIA)</li> <li>Intro to Security+ certification</li> <li>Red- vs. blue-team</li> </ul> </li> </ul>
IT Project Management	Given that you'll be expected to put together several project documents throughout this course, this unit walks you through the ins and outs of creating IT project plans. It'll provide you with a couple of templates and

	<ul> <li>an opportunity to put those templates to the test with two mini-projects. Once you are comfortable creating smaller-scale projects in this unit, you'll be ready to move onto the next unit, where you'll be tasked with creating more complex project plans.</li> <li>Topics Covered: <ul> <li>Principles and practices of IT project planning</li> <li>Create your own IT project plan</li> </ul> </li> </ul>
Host-based Security	<ul> <li>This unit will focus on host security, namely workstation and servers. It includes patching, hardening, and secure configuration. These activities are critical to defending and securing servers and workstations from threat actors and are often the first line of defense against attacks.</li> <li>Topics Covered: <ul> <li>Operating system hardening</li> <li>System patching</li> <li>Virtualization technology</li> <li>Securing computer hardware and peripherals</li> </ul> </li> </ul>
Network Security	The Network Security unit further matures the blue-team perspective by introducing you to the networking security skillset. This lab-heavy unit will include discussions around network architecture, security scanning, and network hardening. Network security is a broad term that covers a multitude of technologies, devices, and processes. In its simplest term, it is a set of rules and configurations designed to protect the integrity, confidentiality, and accessibility of computer networks and data using both software and hardware technologies. Proper network security helps businesses meet mandatory compliance regulations, protect customer data, and reduce the risk of legal action. Without a secure infrastructure and the expertise to remedy an issue, critical performance functions for users and computer programs may not be executable. Topics Covered: Network design Cloud security and server defense Ports and protocols
	<ul> <li>Network attacks</li> <li>Firewalls and IDS/IPS</li> <li>OSI and TCP/IP models</li> <li>Securing wired networks</li> <li>Securing wireless networks</li> </ul>

Identity and Access Management	<ul> <li>Identity and Access Management (IAM) is one of the most important disciplines within cybersecurity. It aims to manage user identities and their access to enterprise resources and data. IAM governance and programs—including policies, processes, and technologies—manage user identities and access, as well as what a user can do within a system through authentication, authorization, and accounting.</li> <li>Topics Covered: <ul> <li>Authentication models and components</li> <li>Access control models defined</li> <li>Rights, permissions, and policies</li> </ul> </li> </ul>
Security Assessment and Testing	In the Security Assessment and Testing unit, you will learn how to conduct security assessments and recommend remediation activities. You will also learn how to create Information Security (IS) audit test plans, which will give you insight into how IS auditors approach their engagements. Exposure to advanced concepts around web security testing and the use of Kali Linux is also included. Mini-projects in this unit will allow you to explore another side of penetration testing, real-world vulnerability management challenges, and software testing plans. Labs in this unit will give you another slice of the red-team world, taking you through the attacking web servers, exploring a vulnerable web application, and cracking passwords. Topics Covered: • Conducting risk assessments and audits of controls • Assessing vulnerabilities • Vulnerability remediation
Security Operations	In the Security Operations unit, you'll learn blue-team security operations to include security toolsets, encryption, and incident response workflows and procedures. Industry-relevant, leading tools you'll use in this unit include Splunk and Wireshark. In addition, foundational scripting skills that will make you a successful cybersecurity analyst, using Python, will also be covered. Topics Covered: Monitoring methodologies Using tools to monitor systems and networks Encryption and hashing concepts Public key infrastructure

	<ul> <li>Security protocols</li> <li>Redundancy planning</li> <li>Disaster recovery planning and procedures</li> <li>Programming primer</li> <li>Physical security</li> <li>Asset security</li> </ul>
Application Security	Software is usually developed with a strong focus on functionality, not security. In many cases, security controls are bolted on as an afterthought (if at all). To get the best of both worlds, security and functionality have to be designed and integrated at each phase of the development life cycle. Security should be interwoven into the core of a product and provide protection at the necessary layers. This unit will cover the complex world of secure software development and the bad things that can happen when security is not properly interwoven into applications.
	Topics Covered:
	<ul> <li>Software development lifecycle</li> <li>Secure Software development practices</li> <li>Web security</li> <li>Database security</li> </ul>
CompTIA Security+ prep	In this final unit, you will run through simulated Security+ Exams and will receive study tips to obtain the Security+ credential. Security+ is an industry-wide recognized certificate for cybersecurity professionals demonstrating they have fundamental cybersecurity skills and will aid graduating students to more easily secure a job. Certificate achievement is also a requirement in order to qualify for Springboard's job guarantee. A voucher to cover the cost of the exam is included in the course cost.
	Topics Covered:
	<ul> <li>Exam topics refresh and review</li> <li>Exam state of readiness</li> <li>Mock Exams</li> </ul>

## Intro to Design

Program Length: 50 hours

Cumulative Final Exam: None

Graduation Document: Certificate of Completion

Standard Occupational Codes / Potential Employment Titles: n/a

Sample of expected job titles: 15-1255.00 - Web and Digital Interface Designers

**Program Description** / **Objectives:** This course teaches you the foundational skills in UI/UX design, having you complete hands-on projects and learning more about what the day-to-day life of a designer looks like. This course will allow you to evaluate if a career in design and a self-paced, online program with plentiful 1-on-1 support is right for you.

Subject Title	Subject Description
Design 101	While working through this subject, you'll be introduced to fundamental
	design concepts, learn about the design thinking process, and begin to
	sharpen your ability to recognize successful designs (and understand why
	they're successful).
	Topics covered:
	• Stages and vocabulary associated with an end-to-end design project
	• A day in the life of a designer
Research	User research is particularly important to designers, as understanding the
	motivations and needs of a user results in the creation of a better product.
	Topics covered:
	• An introduction to different types of research
	• A deep-dive into competitive research
	• Building personas
T1 (° 0	
Ideation &	to design a high-quality product, you il first need to spend some time
Sketching	where ideation comes in Ideating solutions is the process of brainstorming
	an array of ideas and identifying the ideas that might be best — while still
	allowing for the possibility that you'll need to adapt those ideas as you
	begin working on your designs. Sketching is one great way to brainstorm
	possible solutions.
	Topics covered:
	• Sketching techniques
	• The Crazy 8s method for quick sketching
Design Tools	Understanding the theory behind design decisions may be the foundation
	upon which a design career is built, but knowing how to use tools to bring
	your designs to life is also essential. In this unit, you'll learn how to use
	either Sketch or Figma by following along with some Springboard-created
	tutorials.
	Topics covered:

	<ul> <li>Learning how to use Sketch or Figma to create designs</li> <li>The benefits of being a designer</li> <li>The challenges designers frequently face</li> </ul>
Low Fidelity Design	Low fidelity designs are rough representations of the product a designer is working on. Creating low fidelity designs allows a designer to tweak and iterate the main aspects of their design, without spending too much time or effort in the creation process. Low fidelity designs are intended to help a designer validate their ideas early on in the design process. Topics include: Building low fidelity designs Design patterns Wireframes
High Fidelity Design	<ul> <li>High fidelity designs look and feel like real designs but are still adjustable and iterative.Designers use design tools like Sketch and Figma to create high fidelity designs that can then be used in usability tests and other evaluative forms of research. Designers use the results of these tests to improve and refine their high fidelity designs.</li> <li>Topics include: <ul> <li>Style guides</li> <li>Designing in high fidelity</li> <li>Usability testing</li> </ul> </li> </ul>

## **Data Science Career Track Prep**

**Program Length:** 60 hours **Cumulative Final Exam:** Cumulative Case Study **Graduation Document:** Certificate of Completion **Standard Occupational Codes / Potential Employment Titles**: 15-2051.00 - Data Scientists **Sample of expected job titles:** O'NET Online title of Data Scientists represents an occupation for which data collection is currently underway.

# **Program Description / Objectives:**

In this mentor-led course, you'll spend 4-6 weeks learning foundational skills in Python programming and statistics, as well as introductory data science concepts—all via a curriculum specifically designed to help you pass the Data Science Career Track admissions technical skills survey.

Upon successful completion of this course, you will be able to:

- Use Python to complete real-world coding exercises and begin your data science journey
- Apply statistics to tackle problems
- Determine whether the Data Science Career Track is right for you by trialing our unique Springboard learning experience

Subject Title	Subject Description		
Intro to Data Science	In this unit, you'll find easy-to-understand resources that will build your understanding of the field of data science and what data scientists do. You'll become familiar with key aspects of the data science industry, the kinds of problems data scientists are trying to solve, and the techniques they frequently use to solve them.		
Introductory and intermediate Python	<ul> <li>Python has become a lingua franca of data science. You will be introduced to fundamental aspects of programming, and by working on small projects in a hands-on coding environment, hone your skills to advance to the intermediate level.</li> <li>Topics covered include: <ul> <li>Python syntax and control flow</li> <li>Lists and functions</li> <li>Dictionaries, strings and methods</li> <li>Data structures and algorithms</li> </ul> </li> </ul>		
Intro to Descriptive Statistics	<ul> <li>Statistics is the mathematical foundation of data science. Descriptive statistics, as the name suggests, describe a dataset, including its structure, patterns, and trends.</li> <li>Topics covered: <ul> <li>Data distributions</li> <li>Displaying and describing quantitative data, including histograms and stem and leaf plots</li> <li>Scatter plots</li> </ul> </li> </ul>		
Foundations of Probability	<ul> <li>Probability is the science of uncertainty. A probability is a numeric measure between 0 and 1 that expresses how much or how little certainty you have about any phenomenon. As a result, anyone working in the fields of data science has to be intimately comfortable with the concepts associated with probability.</li> <li>In this unit, you'll learn about some of the basic, but important, aspects of probability, including: <ul> <li>Calculating basic probabilities via counting</li> <li>Independence</li> </ul> </li> </ul>		

	<ul><li>Conditional probability</li><li>Bayes Theorem</li></ul>
The Data Science Toolbox	<ul> <li>This section of the course will introduce you to some of the tools of the data-science trade that will help you analyze and visualize data as well as , manage your projects. Topics include:</li> <li>Anaconda</li> <li>Git and GitHub</li> <li>Jupyter Notebook</li> <li>NumPy and matplotlib</li> <li>Pandas</li> </ul>

## Software Engineering Career Track Prep

**Program Length:** 70 hours

**Cumulative Final Exam:** Technical Skills Survey - to Enroll in the Software Engineering Career Track

Graduation Document: No Certificate

**Standard Occupational Codes / Potential Employment Titles**: 15-1252.00 - Software Developers; 15-1254.00 - Web Developers

Sample of expected job titles: n/a

**Program Description** / **Objectives:** A six week program designed to teach students the fundamentals of HTML, CSS, and JavaScript - in order to gain the necessary skills to help them pass the Software Engineering Career Track admissions technical skills survey.

Subject Title	Subject Description
Foundations of HTML	The foundations of HTML unit teaches students the basics of HTML. This unit will give them all of the knowledge they'll need to work with HTML in our Software Engineering Career Track.
	In this unit they'll learn what HTML is, how to create HTML elements, the various components of elements like <body> and <h1> tags, working with lists, creating tables and forms, submitting form data, and more.</h1></body>
	They will also have two small exercises where students create HTML pages, in order to solidify their knowledge.
	The topics covered include:

• UTML Tables and Forms
• $\Pi$ I WIL Tables and Forms
The foundations of CSS unit teaches students the basics of HTML. This unit will give them all of the knowledge they'll need to work with CSS in our Software Engineering Career Track.
In this unit, students will learn the fundamentals of CSS, how the rules and hierarchy work for styling CSS, hexadecimal and how RGB colors work, various ways of manipulating fonts with CSS, CSS selectors including how to use ID property, the box model, formatting on screen elements with the border, width, height, and padding properties, how to display/hide elements with CSS, and more.
There are two mandatory exercises where students apply what they are learning hands on, and two smaller optional exercises if they want more practice.
Topics include: • CSS Fundamental • Selectors and Specificity • CSS Box Model • CSS Display
The foundations of JavaScript teaches students the basics of HTML. This unit will give the basic knowledge of JavaScript that students will need to build from in the Software Engineering Career Track, and to pass our admissions Technical Skills Survey.
In this unit, students will learn what tools they'll need to write and run JavaScript code, how to declare variables, all of the basic data types, boolean logic and boolean operators, how to store and manipulate data in arrays, what objects are and how to use dictionaries, how to use for and while loops, and how to write and use functions.
They will have a series of practice problems at the end of every subunit to solidify the concepts they are learning, and comprehensive practice problems at the end of the unit.
<ul> <li>Topic include:</li> <li>JavaScript Fundamentals</li> <li>Working with Primitive Data Types</li> <li>Program Logic and Flow</li> <li>Arrays</li> <li>Objects</li> <li>Loops</li> <li>Functions</li> </ul>

	Practice Problems
Technical Skills Survey	In this unit, students will prepare to take the admissions test for our Software Engineering Career Track. They will have the option to take a mock Technical Skills Survey (TSS), get up to speed with what the actual test will entail, and then take the Technical Skills Survey.
	<ul> <li>Topics include:</li> <li>How to Use the HackerRank Platform</li> <li>A Mock TSS</li> <li>Taking the TSS Entry Exam for SEC</li> </ul>

# **ACADEMIC POLICIES**

# SATISFACTORY PROGRESS

Springboard's standards of satisfactory progress applies to all students. Students must continually maintain satisfactory progress in order to continue their education at Springboard. To maintain satisfactory progress students must achieve a pass in each subject, if a subject is failed the student must repeat that subject. Upon a second fail in the same subject the student will be withdrawn from the program. Maximum timeframe to complete any program is twelve (12) months from the start date.

## **PROBATION**

During any course repeat the student is considered on probation. Based on the grade of the repeated subject the student will be considered making progress with a Pass, "P" or will be withdrawn from the program with a Fail, "F."

Special or Mitigating Circumstances: The Chief Academic Officer may waive satisfactory progress standard for special or mitigating circumstances outside the control of the student. The circumstances must be documented, and the student must demonstrate that these circumstances that had an adverse impact on the student's satisfactory progress in the program have been rectified and have a documented academic plan to obtain progress.

## **GRADING SYSTEM**

At Springboard, mentors will provide a Pass or Fail for each subject area to track progress. However, each program is a single course. Therefore, there is one final grade on each student's transcript.

Grade	Definition
P: Pass	Has satisfactorily met all minimum program/course requirements
F: Fail	Has not satisfactorily met all minimum program/course requirements

Springboard will return all lessons, assignments, projects no later than 10 days after receipt.

## **WITHDRAWAL**

A student may be deemed to have withdrawn from a program of instruction when any of the following occurs:

- The student notifies the institution of the student's withdrawal or as of the date of the student's withdrawal, whichever is later.
- The institution terminates the student's enrollment for failure to maintain satisfactory progress; failure to abide by the rules and regulations of the institution; absences in excess of maximum set forth by the institution; and/or failure to meet financial obligations to the School.

## **ATTENDANCE**

In the case a student stops engaging within a course and obtains a fail in a subject area by not completing the subject in a timely manner, Springboard will reach out and discuss with the student lack of engagement and provide advisement.

## **LEAVE OF ABSENCE POLICY**

Springboard's priority is to offer students flexibility with their learning schedule. If life gets busy, the students have a few options to take, depending on what they would like to do.

	Pause	Freeze
Payments	Stopped	Stopped
Mentor Calls	Stopped	Stopped
Curriculum Access	Allowed	Revoked
Online Community	Allowed	Revoked

<b>Office Hours</b>	Allowed	Revoked
Office flours	Alloweu	Kevokeu

## **Pause Policy**

This is a great option when students take a vacation, a trip, or need some catch-up time.

#### Guidelines

- Students can use this option *once* during the course
- Students can pause weekly calls for up to 3 weeks
- Students can select to pause the course *now* or after their next mentor call
- Any future calls more than 24 hours out will automatically roll over to when students return from the pause

#### Things to Know:

- Students stay matched with their mentor; they'll pick up calls again once their pause is over (no action required on our end)
- Once students pause, they'll receive a confirmation email. If their pause is 2+ weeks, they'll receive an email one week before their pause ends to remind them it's coming to a close.
- All students will receive the 28-hour reminder "Your call is coming up" email before their first call back with their mentor
- If the student does not return, he/she may be withdrawn or administratively put on a "Freeze."

#### **Freeze Policy**

A subscription freeze allows a student to put their billing on hold once during enrollment in a workshop. While they are frozen, students will lose access to the curriculum, online community, and office hours. They may also be rematched with a different mentor when they return, depending on capacity and availability.

#### Guidelines

- Students can freeze for any amount of time between four weeks and four months
- Students can select to freeze the course *now* or on a specific date (only the dates before their next billing date are shown in the selection)
- Any future calls more than 24 hours out will automatically roll over to when students return from the freeze

#### Things to Know:

- 1. Once students freeze, they'll receive a confirmation email
- 2. Students can return to the course in their billing tab
- 3. Accounts will be automatically cancelled and the student withdrawn if students don't return within four months

#### How to Freeze

If a student needs to freeze and will be able to freeze their account themselves, they can do so through their billing page. Underneath their payment information, there will be a link that says "I need to take a break."

If a student is unable to freeze their account, SAs can manually freeze them through the SA dashboard under "status".

## **Exceptions to the Freeze Policy**

Depending on the situation, administration can make exceptions towards the freeze policy, including:

- Extending the freeze duration (with credit)
- Providing additional call credit(s)
- Allowing students to freeze more than once

Typically, this is in the cases of a medical or personal emergency, special circumstance, or other situation that students reach out to administration.

## **GRADUATION REQUIREMENTS**

A student will be eligible for graduation when:

- All required hours are earned;
- Has passed the course; and
- Has cleared all financial obligations.

# **STUDENT SERVICES**

## ACADEMIC ADVISING

Academic advising may be initiated by Springboard personnel or the student when the need is identified.

## **HOUSING**

Springboard does not assume responsibility for student housing, does not have dormitory facilities under its control, nor offers student housing assistance. According to rentals.com for San Francisco, CA, rental properties within a five-mile radius start at approximately \$1,835.00 per month.

#### **RESOURCE CENTER**

All learning resources necessary for the programs are located within the online learning management system. Students have access to resources 24 hours a day / 7 days a week.

# **CAREER SERVICES - THE SPRINGBOARD GUARANTEE**

We are committed to your success, and will support you fully in the transition into a career. We back our commitment with the "Springboard Guarantee ": subject to the Terms below, we will refund 100% of your paid tuition if you are not offered a Qualifying Position (as defined in the Terms) within 6 months of receiving a Career Track certificate of completion.

A career transition involves focused, consistent effort. We put in this effort to help you make that transition, and ask for an equal commitment from you. Specifically, you shall satisfy the requirements below in order to be eligible for the Springboard Guarantee. If these requirements are not satisfied, you may still participate in the program and receive all of the advantages of career support, but you will not be eligible for the tuition refund. All terms, eligibility requirements, application conduct definitions are outline in the Catalog.

This Springboard Guarantee and Terms, along with the Springboard Terms of Service, set forth the entire understanding between you and Springboard with regard to the subject matter herein. Any provision of these Terms that is unenforceable shall not impact the enforceability of any other provision. Springboard shall have the sole discretion to determine whether the Terms have been satisfied and whether you are eligible for a refund of your tuition. Likewise, Springboard may waive any breaches in its sole discretion.

## Terms

The following terms and conditions (the "Terms") apply to the Springboard Guarantee:

## Eligibility Requirements:

- You must meet the course prerequisites outlined on pages 5-8 of this document
- You must be 18 years of age or older
- You must hold a Bachelor's Degree from any accredited educational institution in any subject by the date you are approved for completing the Career Track. This is <u>not</u> required for students in the Software Engineering Career Track and the Cyber Security Career Track.
- You must be proficient in spoken and written English, as determined by initial interactions with the Springboard Admissions team.
- You must be eligible to legally work in the United States, or in Canada if applying for positions in Toronto, for at least 2 years following graduation from the Career Track.
- You must be able to pass any background checks associated with jobs that you apply for. Without limiting the foregoing, if you fail to obtain a job offer directly or partially due to your failure to pass a background check associated with the job offer, you will not be eligible for the tuition refund.
- [For Cybersecurity Career Track students only] You must successfully pass the CompTIA Security+ certification exam upon course completion

# **Application Conduct**

## Definitions

A "Qualifying Position" is defined as any role in the data science or analytics field as:

A salaried employee or waged employee working an average of at least 30 hours a week; A full-time (30 or more hours per week) contractor or intern for 3 months or longer; or A paid contractor or intern that has the potential to be extended or converted to a full-time role

Please note that while the specialization tracks offered within the Career Track prepare you for a career in a specialized field, we cannot guarantee that your first position will be in that field.

The "Metropolitan Areas" means the metropolitan areas surrounding the following cities for which the Springboard Guarantee applies: San Francisco Bay Area, CA; New York City, NY; Boston, MA; Chicago, IL; Los Angeles, CA; Washington DC; Atlanta, GA; Toronto, ON (Canada); Denver, CO;

Commitment to the Program and Your Own Success

We require that you fully commit to your job search and take our recommendations seriously. As a graduate of the Career Track, we expect you to be an active participant in your own success, and put significant effort into your own growth and your job search. Therefore, for the Springboard Guarantee to be applicable:

You must have completed all the mandatory requirements for graduation, including:

- You must complete 100% of the curriculum within 12 months of your start date, not including any freeze or pause granted to you by Springboard.
- You must receive a "pass" at program completion.
- You must have completed and passed all career development tasks that are (a) listed in the curriculum, in the order they appear in the curriculum, and (b) personally assigned to you by Springboard's career coaches. This includes without limitation taking all calls and mock interviews.
- The 6-month guarantee period starts on the day you are approved for completion, after having completed the above mandatory requirements. During this period:
- You must be active in your job search and apply for a minimum of 4 Qualifying Positions in the Metropolitan Areas per week, in accordance with best practices prescribed by Springboard's career coaches. Notwithstanding the foregoing sentence, remote work is also acceptable provided that all other criteria are met.
- You must be active in building your network and reach out to at least 7 individuals per week and conduct 2 informational interviews per month. Outreach includes emailing, LinkedIn messages, meetups and conferences. An informational interview may be done in person, video chat or phone call. Being consistent in your networking including making contacts and following up is critical to one's success in the job search.

- You must schedule calls with a Springboard career coach at the frequency instructed by the coach.
- You should take guidance from your Career Services team, and follow their recommendations on your job search strategy including building your network and applying for job types that are a good fit for you. You should be applying for roles that are suited to your level of experience and areas of expertise, and maintain realistic expectations about what kind of first job in data science is right for you.
- You must provide Springboard Career Services team with a weekly summary of job-related activity in the tool provided by Springboard, including all job applications submitted and networking efforts made. You will also provide Springboard with further job-related information on request.
- You must respond to placement related communications from Springboard within 72 hours.
- You must always act with reasonable and good faith efforts to obtain a Qualifying Position.

## How This Guarantee Applies to You

Without limiting the foregoing, situations that void this Springboard Guarantee include, but are not limited to:

- 1. You turn down a job offer for a Qualifying Position.
- 2. You decide not to conduct a job search for all or part of the 6-month job search period. Breaks in the job search due to extenuating circumstances may be approved by Springboard in its sole discretion.
- 3. You decide to search for a role that does not meet the Qualifying Position criteria above, or is outside of the data science field/industry.
- 4. You accept a role that does not meet the Qualifying Position criteria above, or is outside of the data science field/industry, before the 6-month guarantee period is over.
- 5. You do not put sufficient and consistent effort into your job search, as outlined above.
- 6. You do not want to or are unable to live and work in one of the Metropolitan Areas.
- 7. You do not communicate with Springboard Career Services consistently throughout your search, including notifying us of any offers you have received.
- 8. You lose your work authorization or do not have sufficient work authorization that meets the requirements above during your search, even if you did expect to have authorization or did at one time have appropriate work authorization during your Career Track program.
- 9. You become physically or mentally unable to conduct an effective job search as outlined above during the Career Track or guarantee period.
- 10. You do not apply for Qualifying Positions in the Metropolitan Areas as required above throughout the 6-month placement period.
- 11. You significantly change your job search strategy during the 6-month placement period, including without limitation changing the Metropolitan Area of search, or industry, unless agreed to in advance by Springboard.
- 12. You do not follow through with the interview process for Qualifying Positions in a timely and professional manner, including but not limited to not participating as expected by the

employer in the interview process by providing responses to employer communications, showing up on time for interviews, and providing documents or follow up as expected by employers.

- 13. You do not apply for jobs that are suitable for your background or experience as discussed in your calls with Springboard's Career Services team.
- 14. You no-show or reschedule/cancel a call with less than 24 hours notice with a career coach or mock interviewer 3 or more times.

## **Certification for Reimbursement**

If you believe you qualify for a reimbursement, you must provide a written and signed certification that you have met all of the Terms, and have not been offered any Qualifying Positions, within one calendar month after the 6-month placement period.

## General

This Springboard Guarantee and Terms, along with the Springboard Terms of Service, set forth the entire understanding between you and Springboard with regard to the subject matter herein. Any provision of these Terms that is unenforceable shall not impact the enforceability of any other provision. Springboard shall have the sole discretion to determine whether the Terms have been satisfied and whether you are eligible for a refund of your tuition. Likewise, Springboard may waive any breaches in its sole discretion.

## STUDENT RECORDS

Student records will be maintained on site at the administrative site for five years from the last date of attendance. Transcripts are maintained permanently.

Students records contain the following information in addition to the name, address, e-mail address, and telephone number of each student who enrolls in Springboard, whether or not the student completes the program/course:

- 1. Written records and transcripts of any formal education or training, testing, or experience that are relevant to the student's qualifications for admission to the institution or the institution's award of credit or acceptance of transfer credits including the following:
  - a. Verification of high school completion or equivalency or other documentation establishing the student's ability to do college level work, such as successful completion of an ability-to-benefit test;
  - b. Grades or findings from any examination of academic ability or educational achievement used for admission or college placement purposes;
  - c. Personal information regarding a student's age, gender, and ethnicity if that information has been voluntarily supplied by the student;
  - d. Copies of all documents signed by the student, including contracts, instruments of indebtedness, and documents relating to financial aid;
  - e. Records of the dates of enrollment and, if applicable, withdrawal from the institution, leaves of absence, and graduation; and
- 2. A transcript showing all of the following:

- a. The courses or other educational programs that were completed, or were attempted but not completed, and the dates of completion or withdrawal;
- b. Credit based on any examination of academic ability or educational achievement used for admission or college placement purposes;
- c. The name, address, website address, and telephone number of the institution;
- d. The certificate granted and the date on which that certificate was granted;
- e. The courses and units on which the certificate was based;
- f. The grades earned by the student in each of those courses.
- 3. A document showing the total amount of money received from or on behalf of the student and the date or dates on which the money was received;
- 4. A document specifying the amount of a refund, including the amount refunded for tuition and the amount for other itemized charges, the method of calculating the refund, the date the refund was made, and the name and address of the person or entity to which the refund was sent;
- 5. Copies of any official advisory notices or warnings regarding the student's progress; and
- 6. A copy of any complaints received from the student.

# **GRIEVANCE PROCEDURE**

If students were to have an issue with the curriculum or their mentor, they are encouraged to immediately contact their Student Advisor. If a resolution cannot be reached, the student should document the concern in writing and make an appointment to speak with the Chief Academic Officer. The formal written concern must state the issue and desired outcome, and should include any documentation that supports the concern. The Chief Academic Officer will review the written statement and any supporting documentation, gather facts, and endeavor to provide a written response to the student within fourteen (14) business days. The Chief Academic Officer's decision is final.

A student or any member of the public may file a complaint about this institution with the Bureau for Private Postsecondary Education by calling 888.370.7589 toll-free or by completing a complaint form, which can be obtained on the bureau's Internet Web site, www.bppe.ca.gov.

# CANCELLATION, WITHDRAWAL AND REFUND POLICY

## STUDENT'S RIGHT TO CANCEL

The program in which you are enrolling is distance education-not offered in real time. The institution will transmit the first lesson and materials to you within seven days after the execution of this enrollment agreement.

You have the right to cancel this enrollment agreement and receive a full refund at any time prior to receiving the first lesson and materials.

Cancellation is effective on the date the written notice of cancellation is sent to the institution at 22 Battery Street, Floor 11, San Francisco, CA 94111. You can also cancel by sending an email to hello@springboard.com Refunds will be paid within 45 days of cancellation unless the

cancellation occurs after the institution has mailed the first lesson and materials, but prior to your receipt of those documents, in such cases the institution shall make the refund within 45 days after your return of the materials in new condition.

This Institution shall transmit all of the lessons and other materials to the student if the student (a) has fully paid for the educational program; and (b) after having received the first lesson and initial materials, requests in writing that all of the material be sent. If the Institution transmits the balance of the material as the student requests, the Institution shall remain obligated to provide the other educational services it agreed to provide, such as responses to student inquiries, student and faculty interaction, and evaluation and comment on lessons submitted by the student, but shall not be obligated to pay any refund after all of the lessons are material are transmitted.

## WITHDRAWAL FROM THE PROGRAM

You may withdraw from the school at any time and receive a pro rata refund if you have completed 60 percent or less of the scheduled days in your program through the last day of attendance.

For the purpose of determining the amount of the refund, the date of the student's withdrawal shall be deemed the last date of recorded attendance. The amount owed equals the daily charge for the program (total institutional charge, minus non-refundable fees, divided by the number of days in the program), multiplied by the number of days scheduled to attend, prior to withdrawal.

For distance education students scheduled days is based on a five day week, which does not include Saturday or Sunday, or any defined holiday as enumerated in Section 6700 of the California Government Code.

Section 6700 of the California Government Code Holidays		
New Year's Day (January 1)		
Martin Luther King, Jr. Day (3rd Monday in January)		
Lincoln Day (February 12)		
Washington Day (3rd Monday in February)		
Cesar Chavez Day (March 31)		
Good Friday (date varies from year to year but usually occurs in March or April)		
Memorial Day (last Monday in May)		
July 4th		
Labor Day (1st Monday in September)		
Admission Day (September 9)		
Columbus Day (2nd Monday in October)		
Veterans Day (November 11)		
Thanksgiving Day (4th Thursday in November)		
Christmas Day (December 25)		

If any portion of the tuition was paid from the proceeds of a loan or third party, the refund shall be sent to the lender, third party or, if appropriate, to the state or federal agency that guaranteed or reinsured the loan. If the student has received federal student financial aid funds, the student is entitled to a refund of monies not paid from federal student financial aid program funds.

	Student Tuition Recovery Fund (STRF)*		
Career Track Program	Non-Refundable	Tuition	Total Cost**
Data Science Career Track	\$5.50	\$11,394.50	\$11,400.00
Data Analytics Career Track	\$5.00	\$10,135.00	\$10,140.00
Data Engineering Career Track	\$6.50	\$13,133.50	\$13,140.00
ML Engineering Career Track	\$6.50	\$13,133.50	\$13,140.00
UX Career Track	\$5.00	\$9,535.00	\$9,540.00
UI/UX Design Career Track	\$7.00	\$14,303.00	\$14,310.00
Software Engineering Career Track	\$6.00	\$11,604.00	\$11,610.00
Cyber Security Career Track	\$5.50	\$11,334.50	\$11,340.00
Data Science Career Track Plus	\$7.50	\$14,932.50	\$14,940.00
Software Engineering Career Track		\$499.00	\$499.00
Prep	\$0		
Data Science Career Track Prep	\$0	\$499.00	\$499.00
Intro to Design	\$0	\$399.00	\$399.00

# **TUITION AND FEES (California residents)**

\*STRF: \$0.50 for every \$1,000 of tuition rounded to the nearest \$1,000.

\*\*Charges for the period of attendance and the entire program.

# **TUITION AND FEES (Non-California residents)**

Career Track Program	Total Cost**
Data Science Career Track	\$11,140.00
Data Analytics Career Track	\$10,140.00
Data Engineering Career Track	\$13,140.00
ML Engineering Career Track	\$13,140.00
UX Career Track	\$9,540.00
UI/UX Design Career Track	\$14,310.00
Software Engineering Career Track	\$11,610.00
Cyber Security Career Track	\$11,340.00
Data Science Career Track Plus	\$14,940.00
Software Engineering Career Track	\$499.00
Prep	
Data Science Career Track Prep	\$499.00
Intro to Design	\$399.00

# **LOAN**

Springboard does not participate in federal and state financial aid programs. If a student obtains a loan to pay for an educational program, the student will have to repay the full amount of the loan plus interest, less the amount of any refund.

Springboard offers no form of financial aid.

## **STUDENT TUITION RECOVERY FUND**

The State of California established the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic loss suffered by a student in an educational program at a qualifying institution, who is or was a California resident while enrolled, or was enrolled in a residency program, if the student enrolled in the institution, prepaid tuition, and suffered an economic loss. Unless relieved of the obligation to do so, you must pay the state-imposed assessment for the STRF, or it must be paid on your behalf, if you are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if you are not a California resident, or are not enrolled in a residency program.

It is important that you keep copies of your enrollment agreement, financial aid documents, receipts, or any other information that documents the amount paid to the school. Questions regarding the STRF may be directed to the Bureau for Private Postsecondary Education, 1747 North Market Blvd., Suite 225, Sacramento, CA 95834, (916) 574-8900 or (888) 370-7589.

To be eligible for STRF, you must be a California resident or enrolled in a residency program, prepaid tuition, paid or deemed to have paid the STRF assessment, and suffered an economic loss as a result of any of the following:

- 1. The institution, a location of the institution, or an educational program offered by the institution was closed or discontinued, and you did not choose to participate in a teach-out plan approved by the Bureau or did not complete a chosen teach-out plan approved by the Bureau.
- 2. You were enrolled at an institution or a location of the institution within the 120 day period before the closure of the institution or location of the institution, or were enrolled in an educational program within the 120 day period before the program was discontinued.
- 3. You were enrolled at an institution or a location of the institution more than 120 days before the closure of the institution or location of the institution, in an educational program offered by the institution as to which the Bureau determined there was a significant decline in the quality or value of the program more than 120 days before closure.
- 4. The institution has been ordered to pay a refund by the Bureau but has failed to do so.
- 5. The institution has failed to pay or reimburse loan proceeds under a federal student loan program as required by law, or has failed to pay or reimburse proceeds received by the institution in excess of tuition and other costs.
- 6. You have been awarded restitution, a refund, or other monetary award by an arbitrator or court, based on a violation of this chapter by an institution or representative of an institution, but have been unable to collect the award from the institution.
- 7. You sought legal counsel that resulted in the cancellation of one or more of your student loans and have an invoice for services rendered and evidence of the cancellation of the student loan or loans.

To qualify for STRF reimbursement, the application must be received within four (4) years from the date of the action or event that made the student eligible for recovery from STRF.

A student whose loan is revived by a loan holder or debt collector after a period of noncollection may, at any time, file a written application for recovery from STRF for the debt that would have otherwise been eligible for recovery. If it has been more than four (4) years since the action or event that made the student eligible, the student must have filed a written application for recovery within the original four (4) year period, unless the period has been extended by another act of law.

However, no claim can be paid to any student without a social security number or a taxpayer identification number.

# MANAGEMENT, STAFF AND FACULTY

## **MANAGEMENT & STAFF**

Co-Founders:

- Gautam Tambay, Chief Executive Officer
- Parul Gupta, Chief Operating / Academic Officer

Name		Title
Parul	Gupta	Co-founder, President
Gautam	Tambay	Co-founder, CEO
Seth	Greenberg	VP - Program Operations
Vince	Huang	VP - Product
Andrew	Moers	President, Consumer Business
Sudakshmina	Mandal	Head of Engineering
Nichole	Pitzen	VP - People and Places
Ryan	Fong	CFO

## **MENTORS**

Each mentor has a minimum of 3 years practical experience in the subject area assigned to.

M	entor Name	Program
AJ	Sanchez	Data Science Career Track
Srdjan	Santic	Data Science Career Track
Shmuel	Naaman	Data Science Career Track
Srdjan	Santic	Machine Learning Engineering Career Track
Nischal	Harohalli Padmanabha	Data Science Career Track
Neal	Fultz	Data Science Career Track
Max	Sop	Data Science Career Track
Hobson	Lane	Data Science Career Track
Praneeth	Vepakomma	Data Science Career Track
Jeff	Ryan	Data Science Career Track
Ben	Bell	Data Science Career Track
Preetjot	Singh	Data Science Career Track
Liang	Kuang	Data Science Career Track
Lucas	Allen	Data Science Career Track

Dr. Stylianos	Kampakis	Data Science Career Track
Kevin	Glynn	Data Science Career Track
Abhishek	Sharma	Data Science Career Track
Varun	Bhatia	Data Science Career Track
Kenneth	Gil-Pasquel	Data Science Career Track
Nik	Skhirtladze	Data Science Career Track
Yadunath	Gupta	Data Science Career Track
Bernard	Chan	Data Science Career Track
Hassan Waqar	Ahmad	Data Science Career Track
Ankur	Agarwal	Data Science Career Track
Karel	Verhoeven	Data Science Career Track
Dipanjan	Sarkar	Data Science Career Track
Ankur	Verma	Data Science Career Track
Zeehasham	Rasheed	Data Science Career Track
Vaughn	DiMarco	Data Science Career Track
Giovanni	Bruner	Data Science Career Track
Tony	Paek	Data Science Career Track
Tony David	Paek Yakobovitch	Data Science Career Track Data Science Career Track
Tony David Jeff	Paek Yakobovitch Hevrin	Data Science Career Track Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy	Paek Yakobovitch Hevrin Cunningham	Data Science Career Track Data Science Career Track Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan	Paek Yakobovitch Hevrin Cunningham Sutton	Data Science Career Track Data Science Career Track Data Science Career Track Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D.	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez	Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D. Tuhin	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez Sharma	Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D. Tuhin Branko	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez Sharma Kovac	Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D. Tuhin Branko Blake	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez Sharma Kovac Arensdorf	Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D. Tuhin Branko Blake Andy	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez Sharma Kovac Arensdorf Cash	Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D. Tuhin Branko Blake Andy Raghunandan	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez Sharma Kovac Arensdorf Cash Patthar	Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D. Tuhin Branko Blake Andy Raghunandan Rahul	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez Sharma Kovac Arensdorf Cash Patthar Sagrolikar	Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D. Tuhin Branko Blake Andy Raghunandan Rahul Andrew	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez Sharma Kovac Arensdorf Cash Patthar Sagrolikar Brooks	Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D. Tuhin Branko Blake Andy Raghunandan Rahul Andrew Ryan	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez Sharma Kovac Arensdorf Cash Patthar Sagrolikar Brooks McCormack	Data Science Career Track Data Science Career Track
Tony David Jeff Jeremy Nathan Ricardo D. Tuhin Branko Blake Andy Raghunandan Rahul Andrew Ryan Devin	Paek Yakobovitch Hevrin Cunningham Sutton Alanis-Tamez Sharma Kovac Arensdorf Cash Patthar Sagrolikar Brooks McCormack Cavagnaro	Data Science Career Track Data Science Career Track

Harsh	Singh	Data Science Career Track
Ken	Cavagnolo	Data Science Career Track
Michael	Chen	Data Science Career Track
Kevin	Ding	Data Science Career Track
Dipanjan	Sarkar	Machine Learning Engineering Career Track
Jeremy	Cunningham	Machine Learning Engineering Career Track
Dat	Tran	Machine Learning Engineering Career Track
Guy	Maskall	Machine Learning Engineering Career Track
Artem	Yankov	Machine Learning Engineering Career Track
Guy	Maskall	Data Science Career Track
Amanbir	Singh	Data Science Career Track Prep
Branko	Kovac	Data Science Career Track Prep
Nemanja	Radojkovi <i>f</i> á	Data Science Career Track Prep
Hassan Waqar	Ahmad	Machine Learning Engineering Career Track
David	Yakobovitch	Machine Learning Engineering Career Track
Sébastien	Arnaud	Machine Learning Engineering Career Track
Shmuel	Naaman	Data Science Career Track Prep
Shubhabrata	Roy	Data Science Career Track Prep
Ricardo D.	Alanis-Tamez	Machine Learning Engineering Career Track
Wayne	Ang	Data Science Career Track
Savin	Goyal	Machine Learning Engineering Career Track
Jeff	Hevrin	Machine Learning Engineering Career Track
Dhiraj	Kumar	Machine Learning Engineering Career Track
YUNNA	WEI	Data Science Career Track
Rajtilak	Indrajit	Data Science Career Track Prep
Nadav	Rindler	Data Science Career Track
Alison	Cossette	Data Science Career Track
Urvesh	Patel	Machine Learning Engineering Career Track
Ana-Maria	Mocanu	Data Science Career Track
Semih	Yagcioglu	Machine Learning Engineering Career Track
Douglas	Sherk	Machine Learning Engineering Career Track
Rahim	Samei	Machine Learning Engineering Career Track

Rafael	Castillo	Data Science Career Track
Biswanath	Halder	Machine Learning Engineering Career Track
prasad	seemakurthi	Data Science Career Track
Bikash	Agrawal	Machine Learning Engineering Career Track
Selam	Woldetsadick	Machine Learning Engineering Career Track
Ajay	ohri	Data Science Career Track Prep
Coetzee	van Staden	Data Science Career Track Prep
Mukesh	Mithrakumar	Data Science Career Track
Mukesh	Mithrakumar	Data Science Career Track Prep
Nishant	Gupta	Data Science Career Track Prep
Logesh Kumar	Umapathi	Machine Learning Engineering Career Track
Rajib	Biswas	Machine Learning Engineering Career Track
Helmut	Neher	Machine Learning Engineering Career Track
Amal	Feriani	Machine Learning Engineering Career Track
Ajith	Patnaik	Data Science Career Track Prep
Wayne	Ang	Data Analytics Career Track
Paras	Doshi	Data Analytics Career Track
Michał	fÜwiok	Data Analytics Career Track
Eric	Hamers	Data Science Career Track Prep
Alara	Dirik	Data Science Career Track Prep
Zach	Wilkins	Data Analytics Career Track
Erik	Loken	Data Analytics Career Track
Tony	Paek	Machine Learning Engineering Career Track
Azadeh	Esmaeili	Machine Learning Engineering Career Track
Vijay K.	Prajapti	Machine Learning Engineering Career Track
Chris	Young	Data Analytics Career Track
Aurel	Cami	Data Science Career Track Prep
Ajith	Patnaik	Data Science Career Track
Sean	Lucas	Data Analytics Career Track
Laib	Kaplan	Data Analytics Career Track
Chris	Hui	Data Analytics Career Track
Blake	Arensdorf	Data Science Career Track Prep

Devin	Cavagnaro	Data Analytics Career Track
Zaal	Dzindzibadze	Machine Learning Engineering Career Track
Reza	Sadoddin	Machine Learning Engineering Career Track
Andrew	Olton	Data Analytics Career Track
Zuraiz	Uddin	Machine Learning Engineering Career Track
Max	Sop	Data Science Career Track Prep
Ben	Bell	Data Science Career Track Prep
Rahul	Gupta	Machine Learning Engineering Career Track
Andrea	Constantinof	Data Science Career Track Prep
Jarus	Singh	Data Science Career Track Prep
Mike	Badescu	Data Science Career Track
Nishant	Gupta	Data Science Career Track
Dhiraj	Khanna	Data Science Career Track Prep
Dhiraj	Khanna	Data Science Career Track
Mohammed	Zakaria	Data Science Career Track Prep
Wayne	Ang	Data Science Career Track Prep
Alex	Rutherford	Data Science Career Track Prep
Tobias	Zwingmann	Data Science Career Track Prep
Serena	Peruzzo	Data Science Career Track
Girish	Gore	Machine Learning Engineering Career Track
Sai Kumar	Arava	Machine Learning Engineering Career Track
Nick	Zizos	Data Analytics Career Track
Shwathi	Soni	Machine Learning Engineering Career Track
Santiago	Viquez	Data Analytics Career Track
Adam	Adler	Data Science Career Track Prep
Ana	Santos	UI/UX Design Career Track
Shraddha	Swaroop	UI/UX Design Career Track
Angelo	Lo Presti	UI/UX Design Career Track
Nathaniel M.	Chen	UI/UX Design Career Track
Ciarda	Henderson	UI/UX Design Career Track
John	Maier	UI/UX Design Career Track
Anne	Pike	UI/UX Design Career Track

Ali Rushdan	Tariq	UI/UX Design Career Track
Alex	Souza	UI/UX Design Career Track
Nemanja	Radojkovi <i>f</i> á	Machine Learning Engineering Career Track
Sashank	Musti	Data Analytics Career Track
Eleanor	Thomas	Data Analytics Career Track
Todd	Lewis	UI/UX Design Career Track
Jay	Trainer	UI/UX Design Career Track
Han	Rhyu	UI/UX Design Career Track
Heiko	Sacher	UI/UX Design Career Track
JP	Costanzo	UI/UX Design Career Track
Vee	Mateus	UI/UX Design Career Track
Sandra	Vickery	UI/UX Design Career Track
Spencer	Moon	Data Analytics Career Track
Radu	Vucea	UI/UX Design Career Track
Geoff	Courbis	UI/UX Design Career Track
Arul	Bharathi	Data Analytics Career Track
Roxana	Cociorba	UI/UX Design Career Track
Mariam	Elshebokshey	UI/UX Design Career Track
Earl	Friedberg	UI/UX Design Career Track
Josette	Desulme	UI/UX Design Career Track
Lizhi	Dong	Data Analytics Career Track
Karim	Lahrichi	Data Analytics Career Track
Chris	Esposo	Data Science Career Track
Vanessa	Costa-Massimo	UI/UX Design Career Track
Farid	Sukurov	UI/UX Design Career Track
Tyler	Pratt	UI/UX Design Career Track
Veronica	Hsieh	Data Analytics Career Track
tech-debug+ixc_me	e VO	III/IIX Design Career Track
Todd	yu Chambara	UI/UV Design Career Treek
1000	Domoguhramania	OF Design Career Hack
Karthik	n	Data Science Career Track Prep

	Martinez	
Said	Calderon	UI/UX Design Career Track
John	Sukup	Data Science Career Track
Rafal	Jankos	UI/UX Design Career Track
Elsa	Но	UI/UX Design Career Track
Toly	Gins	Data Analytics Career Track
Rain	Lieberman	UI/UX Design Career Track
Benjamin Kai	Tong	UI/UX Design Career Track
Siim	Schults	Software Engineering Career Track
Daniel	Hong	Data Analytics Career Track
Sebastian	Tory-Pratt	UI/UX Design Career Track
David	Güiza Caicedo	UI/UX Design Career Track
Lauren	McElroy	UI/UX Design Career Track
Meg	Clayton	UI/UX Design Career Track
Solomon	Antony	Data Analytics Career Track
Mukhethwa Sharon	Shandukani	Data Analytics Career Track
Zeehasham	Rasheed	Data Analytics Career Track
Jamison	Caloras	UI/UX Design Career Track
Matheus	Jacob Paulin	Software Engineering Career Track
Shoumik	Goswami	Data Analytics Career Track
Osama	Ghazal	UI/UX Design Career Track
Anabel	Leva	UI/UX Design Career Track
Karen	Ko	UI/UX Design Career Track
Bhavya	Bhushan	Software Engineering Career Track
Leon	Hui	UI/UX Design Career Track
Archana	Jain	Software Engineering Career Track
Gaurav	Laddha	Data Analytics Career Track
sharath	Prabhal	Software Engineering Career Track
Mark	Peterson	UI/UX Design Career Track
John	Newton	Software Engineering Career Track
Diptesh	Paul	Data Analytics Career Track
Tony	Baby	Data Analytics Career Track
Joseph	Sudibyo	Data Analytics Career Track
Gabriel	Berard	UI/UX Design Career Track
---------------	----------------	---
Rahul	Sagrolikar	Data Analytics Career Track
Mackenzie	Cowles	Data Analytics Career Track
Alexander	Grun	Data Analytics Career Track
Daniel	Wu	Data Science Career Track
Daniel	Wu	Machine Learning Engineering Career Track
Aida	Nogués	UI/UX Design Career Track
Vaughn	DiMarco	Data Analytics Career Track
Sladana	Kozar	UI/UX Design Career Track
Seth	Sokol	UI/UX Design Career Track
Vitor	Pinho	UI/UX Design Career Track
Leanne	Kawahigashi	UI/UX Design Career Track
Vitor	Freitas	Software Engineering Career Track Prep
Przemyslaw	Baran	Data Analytics Career Track
Reza	Sadoddin	Data Science Career Track
Jonathan	Root	Software Engineering Career Track Prep
ankitjavalkar	J	Software Engineering Career Track Prep
	Ramasubramania	
Karthik	n	Data Analytics Career Track
David	Lara-Arango	Data Analytics Career Track
Tejas	Pandey	Data Analytics Career Track
Rohit	Jain	Data Analytics Career Track
Débora	Edelberg	UI/UX Design Career Track
James (Jim)	Rudolf	Software Engineering Career Track Prep
James (Jim)	Rudolf	Software Engineering Career Track
Xu (Sue)	Ashton	Data Analytics Career Track
Andrew	MacDonald	Software Engineering Career Track Prep
Samir	Nasser Eddine	Software Engineering Career Track
Sam	Johnson	Software Engineering Career Track Prep
Sam	Johnson	Software Engineering Career Track
Jesse	Perez	UI/UX Design Career Track
Edoe	Balint	Data Analytics Career Track
Marina	Gulakova	Software Engineering Career Track Prep

Anthony	Gras	Data Analytics Career Track
Ashwin Kumar	Kannan	Machine Learning Engineering Career Track
Oscar	Cardoso	Software Engineering Career Track Prep
Hemanth	Kattamuri	Data Analytics Career Track
Alexander	Turok	Software Engineering Career Track
Rahul	Kumar	Data Analytics Career Track
Kanupria	Sanu	Data Analytics Career Track
Brandon	Groce	UI/UX Design Career Track
Lahiru	Ginnaliya Gamathige	Software Engineering Career Track
Jason	Bowling	Software Engineering Career Track
Candice	Haddad	Software Engineering Career Track
Mauro	Chojrin	Software Engineering Career Track
Anna	Shulyak	Data Analytics Career Track
Udeme	Udofia	Data Science Career Track Prep
Farye	Nwede	Software Engineering Career Track
Peter	Nsaka	Software Engineering Career Track
Zachary	Bennett	Software Engineering Career Track
Hasin	Ahmed	Data Analytics Career Track
Danny	Ledger	UI/UX Design Career Track
Thomas	Murray	UI/UX Design Career Track
Sonia Rose Mary	Karungi	Software Engineering Career Track
Akshay	Jhawar	Data Analytics Career Track
Don	Omondi	Software Engineering Career Track
Youssuf	ElKalay	Software Engineering Career Track Prep
Nathan	Kuo	Software Engineering Career Track
Alan	Frank	Software Engineering Career Track
Ankush	Kotriwal	Software Engineering Career Track Prep
Natasha	Hampshire	UI/UX Design Career Track
Rehan	Shahid	Software Engineering Career Track Prep
Mohit	Bhatia	Data Analytics Career Track
Bob	Newstadt	Data Analytics Career Track
Vadim	Grayfer	Software Engineering Career Track Prep

David	Gerrells	UI/UX Design Career Track
anurag	trivedi	Data Science Career Track
Adam	Adler	Data Science Career Track
Vijay	Viswanathan	Data Analytics Career Track
Noor	Hussain	Data Analytics Career Track
Levi	Baitleman	UI/UX Design Career Track
Lucas	Mosele	UI/UX Design Career Track
Luke	Stringer	Data Analytics Career Track
Sharath	Jarugumilli	Data Analytics Career Track
Jared	Knapp	UI/UX Design Career Track
Meha	Jain	Software Engineering Career Track Prep
Dida	Marinova	UI/UX Design Career Track
Clara	Marquardt	Data Science Career Track
Agustin	Dana	UI/UX Design Career Track
Vanessa	Osorio	UI/UX Design Career Track
Adam	G.	Software Engineering Career Track Prep
Calvin	Cole	Software Engineering Career Track Prep
Jonathan	Keane	Software Engineering Career Track Prep
Mikael Araya	Mengistu	Software Engineering Career Track Prep
John	Moore	Software Engineering Career Track
Paul	Kim	Software Engineering Career Track
tiffany	stokley	Software Engineering Career Track Prep
Arun	Goyal	Data Analytics Career Track
Pasquale	Prosperati	Data Analytics Career Track
Werner	Griesel	UI/UX Design Career Track
Carlton	Devereaux	UI/UX Design Career Track
Shwathi	Soni	Data Science Career Track
Eduardo	Ponce	Data Analytics Career Track
Ron	Goodwin	Software Engineering Career Track
Laura	Trouiller	UI/UX Design Career Track
Karla	Fernandes	UI/UX Design Career Track
Josie	Oria	Data Analytics Career Track

Renie	Siqueira	Software Engineering Career Track Prep
Thomas	Proust	Software Engineering Career Track
Guy	Maskall	Data Science Career Track Prep
Roy	Zheng	Software Engineering Career Track
David	Lara-Arango	Data Science Career Track Prep
Anade	Davis	Data Science Career Track Prep
Elissa	Thomas	Software Engineering Career Track Prep
Rahul	Kumar	Data Science Career Track Prep
Shubham	Singh Tomar	Data Science Career Track Prep
Andrew	Pignato	UI/UX Design Career Track
Ambrose	Yau	UI/UX Design Career Track
William	Turner	Software Engineering Career Track Prep
Adegbenga	Adeye	Software Engineering Career Track
Sunishchal	Dev	Data Science Career Track
OLAYEMI	ODEFUNSHO	Software Engineering Career Track Prep
Jack	Hoge	Software Engineering Career Track
Paul	Sherer	Software Engineering Career Track
Mariam	Natukunda	Software Engineering Career Track Prep
Maxim	Latanovschii	UI/UX Design Career Track
Osaze	Edo-Osagie	Software Engineering Career Track Prep
Nathan	Freystaetter	Data Analytics Career Track
Adekunle	Oduye	UI/UX Design Career Track
Maya	Carroll	UI/UX Design Career Track
Haris	Hanif	Software Engineering Career Track Prep
Edward	Chu	UI/UX Design Career Track
Quynh	Nguyen	UI/UX Design Career Track
Andy	Lam	UI/UX Design Career Track
Shreyas	Becker	Data Analytics Career Track
Debosmita	Das	Data Analytics Career Track
shadid	haque	Software Engineering Career Track
,	Moreno	
José Fernando	Gutiérrez	Data Analytics Career Track
Vibhu	Arul	Data Analytics Career Track

Salim	Khubchandani	Data Analytics Career Track
Samuel	Lin	Data Analytics Career Track
Prabhat	Ranjan	Data Analytics Career Track
Hussien	Khayoon	Software Engineering Career Track
John	Hillegass	Software Engineering Career Track
Renish	В	Software Engineering Career Track
Krispin	Stock	UI/UX Design Career Track
Sam	Barranco	Software Engineering Career Track
Kushal	Gupta	Software Engineering Career Track Prep
Chris	Harding	Software Engineering Career Track Prep
Rajib	Biswas	Data Science Career Track
Ron	Goodwin	Software Engineering Career Track Prep
Richard	Ball	Data Science Career Track
David	Lara-Arango	Data Science Career Track
Vanessa	Joho	UI/UX Design Career Track
Anas	Qazi	Software Engineering Career Track Prep
Ofure	Okoronkwo	Software Engineering Career Track
Robert	McCardell	Software Engineering Career Track
Мо	Touman	UI/UX Design Career Track
Helena	Bukovac	UI/UX Design Career Track
Норе	Kay	UI/UX Design Career Track
Michel	Loro	UI/UX Design Career Track
Archit	Garg	Data Analytics Career Track
Gabriel	Ζ	Data Analytics Career Track
Yuntao	Li	Data Analytics Career Track
Juanjo	Milla	Data Analytics Career Track
Phil	Aelion-Moss	Software Engineering Career Track
Patricio	Vargas	Software Engineering Career Track Prep
Bear	Liu	UI/UX Design Career Track
Ashley	Mills	UI/UX Design Career Track
Gant	Laborde	Software Engineering Career Track
Joseph Alex	Kayabula	Software Engineering Career Track

Martina	Vasilj	UI/UX Design Career Track
Hannah	Maher	UI/UX Design Career Track
Shailendra	Verma	Software Engineering Career Track
Pia	Zaragoza	Intro to Design
Cari	Jacobs	Intro to Design
Норе	Kay	Intro to Design
Yoav	Daube	Intro to Design
Radu	Vucea	Intro to Design
Rafal	Jankos	Intro to Design
Leanne	Kawahigashi	Intro to Design
Jessica	McElroy	Software Engineering Career Track
Dan	Olsavsky	UI/UX Design Career Track
Vlad	Danciu	UI/UX Design Career Track
Kiley	Meehan	UI/UX Design Career Track
Avinash	Kustagi	Data Analytics Career Track
Vinay	Bansal	Software Engineering Career Track
Joseph	Ssempala	Software Engineering Career Track
Ashish	Dixit	Data Analytics Career Track
Jared	Sager	UI/UX Design Career Track
Lakshmi Priya	Subramanian	UI/UX Design Career Track
Eleanor	Thomas	Data Science Career Track
Joseph	Crawford	Data Analytics Career Track
Lorraine	Feury	Data Analytics Career Track
lucky	rathore	Software Engineering Career Track
Jonas	Torres	Data Analytics Career Track
Oscar	Gerritsen	Data Analytics Career Track
Kelman	Chiang	Data Analytics Career Track
Vaibhav	Kukreja	Data Analytics Career Track
Daria	Kosheleva	UI/UX Design Career Track
VKi	Cheong	UI/UX Design Career Track
Dragos	Bardac	UI/UX Design Career Track
Calvin	Carter	Software Engineering Career Track

Urvesh	Devani	Data Science Career Track
Leonardo	Calogero	UI/UX Design Career Track
Simbarashe	Chikaura	Data Analytics Career Track
Scott	Sims	Data Science Career Track Prep
Christina	Luchkiw	UI/UX Design Career Track
Vivek	Kumar	Data Science Career Track
Jonah	McLachlan	UI/UX Design Career Track
Kyle	Ueckermann	Software Engineering Career Track
Karthikeyan	Balasubramanian	Software Engineering Career Track
Josh	Kim	UI/UX Design Career Track
Aradia	Correnti	UI/UX Design Career Track
Malik	Saunders	Data Analytics Career Track
Brady	Haynes	UI/UX Design Career Track
Alan	Wexelblat	UI/UX Design Career Track
Leah	King	UI/UX Design Career Track
Denise	De Gaetano	Data Analytics Career Track
Wyatt	Feaster	UI/UX Design Career Track
Bevin	Mohabeer	UI/UX Design Career Track
Pedro	Pastrana	Software Engineering Career Track
Jenny	Minke	UI/UX Design Career Track
mahta	moattari	UI/UX Design Career Track
Tom	Jepson	UI/UX Design Career Track
Naresh	Kumar	Data Analytics Career Track
Hannah	White	UI/UX Design Career Track
Isaac	Vigil	UI/UX Design Career Track
Julian	Jenkins III	Data Science Career Track
Akshay	Jhawar	Data Science Career Track
Janet	Fu	UI/UX Design Career Track
Andrew	West	UI/UX Design Career Track
Vasile	Tiplea	UI/UX Design Career Track
karthik	Ramesh	Data Engineering Career Track
Tal	Grinberg	UI/UX Design Career Track

Renata	Amatore	UI/UX Design Career Track
Marina	Gulakova	Software Engineering Career Track
Cari	Jacobs	UI/UX Design Career Track
Thania	Soetandar	UI/UX Design Career Track
HebaH	А	UI/UX Design Career Track
Nate	Peifer	Data Analytics Career Track
Woody	MacDuffie	UI/UX Design Career Track
Lily	Huang	UI/UX Design Career Track
Mark	Swaine	UI/UX Design Career Track
Ted	Ly	Software Engineering Career Track
PETER	CHOW	UI/UX Design Career Track
Regina	Holman	Data Analytics Career Track
David	Scharn	UI/UX Design Career Track
Anh	Mai	Software Engineering Career Track
Naomi	Alterman	Software Engineering Career Track
Subir	Chowdhuri	Software Engineering Career Track
Christos	Gkoros	Software Engineering Career Track
Jennifer	Cen	Software Engineering Career Track
Allen	Sanders	Software Engineering Career Track
Paras	Doshi	Data Engineering Career Track
Edu	Isiadinso	Software Engineering Career Track
Hanieh	Khosroshahi	UI/UX Design Career Track
Sarah	Piper-Goldberg	UI/UX Design Career Track
Tammy	Guy	UI/UX Design Career Track
Franchesca	Reich	UI/UX Design Career Track
Ryan	Sutton	UI/UX Design Career Track
Cary	Heidesch	Data Analytics Career Track
Ryan	Tang	Software Engineering Career Track
Ruba	Hassan	Software Engineering Career Track
Elina	Zhang	UI/UX Design Career Track
Hanke	Kimm	Software Engineering Career Track
Emily	Noffsinger	UI/UX Design Career Track

Jaime	Creixems	UI/UX Design Career Track
Akhil	Raj	Data Engineering Career Track
Julia	Kho	Data Analytics Career Track
Shubhank	Sahay	UI/UX Design Career Track
Hasani	Tyus	UI/UX Design Career Track
Noemi	Selisker	Intro to Design
Zuraiz	Uddin	Data Engineering Career Track
Jason	Yoo	Data Analytics Career Track
Manprit	Kalsi	UI/UX Design Career Track
Maksim	Mamrikov	Software Engineering Career Track
Mohammed		
Kamran	Syed	Software Engineering Career Track
Natasha	Staples	Cyber Security Career Track
Ricky	Phuong	UI/UX Design Career Track
Daniel	Alb	UI/UX Design Career Track
Rahul	sharma	Software Engineering Career Track
Ashok	Kumar	Software Engineering Career Track
Halim	Tannous	Software Engineering Career Track
Sean	Z	Software Engineering Career Track
Victor	Miclovich	Software Engineering Career Track
David	Zhao	Data Analytics Career Track
Michael	Patterson	Data Analytics Career Track
Kelsea	Rathbun	Data Engineering Career Track
Eric	Zhang	Data Analytics Career Track
Tommy	Koo	UI/UX Design Career Track
Marc	Jaramillo	Software Engineering Career Track
Renie	Siqueira	Software Engineering Career Track
Kyleigh	Smith	UI/UX Design Career Track
Steffen	Irrgang	Software Engineering Career Track
Johnny	Ceron	UI/UX Design Career Track
Julia	Dinh	UI/UX Design Career Track
Alex	Escoriaza	Data Analytics Career Track
Jyotiska	Khasnabish	Data Engineering Career Track

Matthew	Weprin	UI/UX Design Career Track
Jenniffer	Whittingham	UI/UX Design Career Track
Marlon	Vilorio	Software Engineering Career Track
Candy	Tsai	Software Engineering Career Track
Chelsea	Zhou	UI/UX Design Career Track
	Kumarasubraman	L Contraction of the second
Ram	ian	Intro to Design
Jon	Racinskas	UI/UX Design Career Track
Hande	Kocabey	UI/UX Design Career Track
Anna	Lopriore	UI/UX Design Career Track
Sal	Perez	UI/UX Design Career Track
Madhuri	Maddipatla	Data Analytics Career Track
Rodrigo	Narciso	UI/UX Design Career Track
David	Lara-Arango	Machine Learning Engineering Career Track
Ana	Massette	UI/UX Design Career Track
Emilia	Ronchetti	UI/UX Design Career Track
Pushpita	Shrestha	Software Engineering Career Track
Eric	Nguyen	Software Engineering Career Track
Sowmya	Kidambi T	UI/UX Design Career Track
Alex	Fracazo	UI/UX Design Career Track
Scott	La Counte	UI/UX Design Career Track
Alex	Small	UI/UX Design Career Track
Luka	Anicin	Data Science Career Track
Tiffany	Eaton	UI/UX Design Career Track
Sean	Baxter	UI/UX Design Career Track
Jess	Vice	UI/UX Design Career Track
James	Young	Intro to Design
David	Yakobovitch	Data Engineering Career Track
Kathryn	Deming	UI/UX Design Career Track
Naval	Handa	Data Analytics Career Track
Igor	Solovey	UI/UX Design Career Track
Jessica	Li Wan Po	UI/UX Design Career Track
Fabio	Polese	UI/UX Design Career Track

Skye	Nguyen	Software Engineering Career Track
Vitor	Pinho	Intro to Design
Michel	Semaan	Data Analytics Career Track
Morris	Chow	Data Analytics Career Track
Namit	Chaturvedi	Data Science Career Track
Nick	Busman	UI/UX Design Career Track
Nathalia	Garay	Data Analytics Career Track
Michelle	McDonald	UI/UX Design Career Track
hala.wakidi	Wakidi	UI/UX Design Career Track
Jason	Smith	UI/UX Design Career Track
Ruta	Shastri	UI/UX Design Career Track
Kristen	Henmueller	UI/UX Design Career Track
Adam	Cassidy	UI/UX Design Career Track
Akshay	Verma	UI/UX Design Career Track
Mitchell	Thieman	UI/UX Design Career Track
ROBERT	JOHNSON	UI/UX Design Career Track
Julie	Hornberger	UI/UX Design Career Track
Jonathan Chad	Sixt	Data Engineering Career Track
Rahul	Kumar	Data Science Career Track
Tiffany	Whitener	UI/UX Design Career Track
angeline.chenn		UI/UX Design Career Track
Taimur	Sajid	Data Analytics Career Track
Tobias	Zwingmann	Data Analytics Career Track
Pranam	Partab	Data Analytics Career Track
Megan	Walsh	Data Analytics Career Track
Bargava	Subramanian	Data Analytics Career Track
Melany	Valderrama	UI/UX Design Career Track
Changying	Zheng (Z)	UI/UX Design Career Track
omar	sharif	UI/UX Design Career Track
Diana	Lee	Software Engineering Career Track
David	Naval	Data Analytics Career Track
Ellina	Lapina	UI/UX Design Career Track

Jashan	Gupta	UI/UX Design Career Track
Hannah	Wiggins	UI/UX Design Career Track
James	Cunningham	UI/UX Design Career Track
Mirela	Ignat	UI/UX Design Career Track
Udeme	Udofia	Data Analytics Career Track
Fran	Thring	UI/UX Design Career Track
Melissa	Lahn	UI/UX Design Career Track
Justin	Kwong	UI/UX Design Career Track
Brooke	Houghton	UI/UX Design Career Track
Nirunama	Puthur Venkataraman	Data Analytics Career Track
Branko	Kovac	Data Analytics Career Track
Rajasekar	Rovae Balamani	Software Engineering Career Track
Paritosh	Lokhande	Software Engineering Career Track
Raissa	Carvalho-Ruehle	UI/UX Design Career Track
Ashir	Amin	Software Engineering Career Track
Bharat	Verma	Software Engineering Career Track
Ionathan	Weber	UI/UX Design Career Track
Jim	Carson	Data Analytics Career Track
Mike	Odom	Software Engineering Career Track
Daniel	Kim	Software Engineering Career Track
Mary Anne	Thygesen	Data Analytics Career Track
Rajat	Aggarwal	Software Engineering Career Track
YUXUAN	XIN	Data Science Career Track
Tolga	Tuncoglu	Data Science Career Track
Nikhil	Doshi	Software Engineering Career Track
Eric	Ast	Data Analytics Career Track
Ryan	McCormack	Data Engineering Career Track
Erlyn Rachelle	Macarayan	Data Analytics Career Track
Flavio	Di Berardino	Data Analytics Career Track
Antonija	Pek	UI/UX Design Career Track
Alessandro	Caliandro	UI/UX Design Career Track
Shanak	Rahman	UI/UX Design Career Track

Dennis	Van Huffel	UI/UX Design Career Track
Naudi	Gimenez	Data Analytics Career Track
Nathalí	Amaro	UI/UX Design Career Track
Zachary	Evetts	UI/UX Design Career Track
Michael	Kuhn	UI/UX Design Career Track
Sean	Murdock	Data Engineering Career Track
Haris	Hanif	Software Engineering Career Track
Leonard	Simon	Cyber Security Career Track
Juanjo	Milla	Data Science Career Track
Clayton	Weber	Data Analytics Career Track
Andrew	Reedy	Software Engineering Career Track
Abdullah	Karasan	Data Science Career Track
т.:	Rodriguez	
Javier	Epilman	Data Analytics Career Track
Ty	Sanyude	Data Analytics Career Track
Michael	Greis	Data Analytics Career Track
Taniya	Agarwal	Software Engineering Career Track
John	Bailey	Software Engineering Career Track
austen	novis	Software Engineering Career Track
Sunny	Kolattukudy	Software Engineering Career Track
Cassie	McDaniel	UI/UX Design Career Track
Sarah	Pan	UI/UX Design Career Track
Van	Sedita	UI/UX Design Career Track
Julie	Madsen	Software Engineering Career Track
Alissa	Torres	Cyber Security Career Track
Marius	Cociorba	Cyber Security Career Track
Nick	Pomeroy	UI/UX Design Career Track
Ken	Otte	UI/UX Design Career Track
Ron	Cueto	UI/UX Design Career Track
Vikram	Singh	Data Analytics Career Track
Morgane	Peng	UI/UX Design Career Track
Nicolas	Hung	UI/UX Design Career Track
Lewis	Nyman	UI/UX Design Career Track

Pallavi	Sahoo	Data Analytics Career Track
Becky	Song	UI/UX Design Career Track
Camille	Berry	UI/UX Design Career Track
Aaron	Benjamin	UI/UX Design Career Track
Jake	Kwok	Cyber Security Career Track
Dennis	Harvey	Cyber Security Career Track
Daniel	Barber	Cyber Security Career Track
Jay	James	Cyber Security Career Track
Izabela	Bulska	UI/UX Design Career Track
Khushboo	Tiwari	Data Analytics Career Track
Richard	Su	Software Engineering Career Track
Yongqiang	Zhang	Data Analytics Career Track
Lis	Fernandez Ojeda	UI/UX Design Career Track
Jonathan	DeAscentis	UI/UX Design Career Track
Lionel	Fairon	Cyber Security Career Track
James	Collingwood	UI/UX Design Career Track
Mark	Adams	Cyber Security Career Track
Apurv	Tiwari	Cyber Security Career Track
Chris	Eastwood	Cyber Security Career Track
Sydnie	Tom	UI/UX Design Career Track
Nicole	Nussbaum	UI/UX Design Career Track
Patrick	Jordan	Cyber Security Career Track
Michelle	Park	UI/UX Design Career Track
Daniel	Klein	UI/UX Design Career Track
Matthew	Anderson	UI/UX Design Career Track
Alexandru	NfÉstase	UI/UX Design Career Track
Geethu	Sivadas	UI/UX Design Career Track
Jennifer	Kim	UI/UX Design Career Track
Karla	Fernandes	Intro to Design
Scott	La Counte	Intro to Design
Sanyam	Arya	Software Engineering Career Track
Seyi	Martins	Cyber Security Career Track

Alsayyed	Hussain	Cyber Security Career Track
Richard	Rea	Cyber Security Career Track
Lorraine	Feury	Data Science Career Track Prep
David	Lara-Arango	Data Science Career Track Plus
Luka	Anicin	Data Science Career Track Plus
Raghunandan	Patthar	Data Science Career Track Plus
Ricardo D.	Alanis-Tamez	Data Science Career Track Plus
Hobson	Lane	Data Science Career Track Plus
Kevin	Ding	Data Science Career Track Plus
Kevin	Glynn	Data Science Career Track Plus
Dipanjan	Sarkar	Data Science Career Track Plus
Deepthi	Menon	Cyber Security Career Track
Jake	Williamson	Cyber Security Career Track
Aisha	Nazam	Cyber Security Career Track
Brad	Davis	Cyber Security Career Track
Paul	Holgate	Cyber Security Career Track
Bumjin	Park	Cyber Security Career Track
Adam	Smith	Cyber Security Career Track
Aneesa	Hussain	Cyber Security Career Track
Mayan	Arora	Cyber Security Career Track
Alexander	Stepanov	Data Analytics Career Track
Jonathan	Apple	Data Analytics Career Track
Andrew	Enfield	Data Analytics Career Track
Siddharth	Mahapatra	Data Analytics Career Track
Kendall	Hearn	Cyber Security Career Track
Seyi	Ajiboye	Cyber Security Career Track
Kelly	Gachet	Data Analytics Career Track
Faisal Malik	Widya Prasetya	Data Engineering Career Track
Daniel	Powers	Cyber Security Career Track
Jan	D'Herdt	Cyber Security Career Track
Anuj	Sharma	Cyber Security Career Track
Steven	Goossens	Cyber Security Career Track

Elias	Malik	Cyber Security Career Track
Jason	Ward	Cyber Security Career Track
Nickelby	Thane	Cyber Security Career Track
Josh	Owoeye	Cyber Security Career Track
Oluwafemi	Olapade	Cyber Security Career Track
Ronke	Ibikunle	Cyber Security Career Track
Omorinsola	Goriola	Cyber Security Career Track
Oluwatobi	Dada	Cyber Security Career Track
Grigoris	Chrysanthou	Cyber Security Career Track
Jesse	Chichester-Const able	Cyber Security Career Track
	Boachie-Agyema	
Nana Yaw	n	Cyber Security Career Track
Paul	Robertson	Cyber Security Career Track
ellis.stannard		Cyber Security Coreer Treek
		Cyber Security Career Hack
christopher.mcguire	e11	Cyber Security Career Track

## STATE OF CALIFORNIA CONSUMER INFORMATION

Springboard is not accredited by an agency recognized by the United States Department of Education (USDE) and students are not eligible for federal financial aid programs.

The courses offered at Springboard do not prepare students for licensure for any profession, occupation, trade, or career field. Graduates of the programs will not be eligible to sit for any applicable licensure exam.

As a prospective student, you are encouraged to review this catalog prior to signing an enrollment agreement. You are also encouraged to review the School Performance Fact Sheet, which must be provided to you prior to signing an enrollment agreement.

Any questions a student may have regarding this catalog that have not been satisfactorily answered by the school may be directed to the Bureau for Private Postsecondary Education at 1747 North Market Blvd., Suite 225, Sacramento, CA 95834, www.bppe.ca.gov, toll-free telephone number (888) 370-7589 or by fax (916) 263-1897.

Springboard has never filed a bankruptcy petition, operated as a debtor in possession or had a petition of bankruptcy filed against it under federal law.

Springboard does not participate in federal or state financial aid programs.

Springboard is not accredited by an agency recognized by the United States Department of Education (USDE) and students are not eligible for federal financial aid programs.

## CATALOG CHANGES

Information about Springboard is published in this catalog, which contains a description of policies, procedures, and other information about the School. Springboard reserves the right to change any provision of the catalog at any time. Notice of changes will be communicated in a revised catalog, an addendum or supplement to the catalog, or other written format with an effective date. Students are expected to read and be familiar with the information contained in the catalog, in any revisions, supplements and addenda to the catalog, and with all school policies. By enrolling in Springboard, the student agrees to abide by the terms stated in the catalog and all school policies.