



SYLLABUS

Beginner Full-Time Coding Bootcamp: Software Engineering with JavaScript & Python



A challenging, exciting, and life-changing learning experience.



This program will take you from beginner to job-ready in 19 weeks using a modern, module-based curriculum focused on putting new skills and knowledge into practice right away. You'll become a full-stack software engineer, writing your own applications and using AI-powered productivity tools.

Among many topics, tools, and languages, you'll learn **JavaScript** and **Python**, two of the most in-demand programming languages by companies and professional developers. You'll work hard, and along the way, you'll be supported by our team of experienced professionals.

How You'll Learn

We use the [mastery learning model](#), which helps ensure you grasp, internalize,

and gain proficiency throughout each of the four learning modules. Mastery learning maintains that students need to master the material before moving on to new ideas, concepts, and technologies. In this program, you'll have the ability to retake modules as needed.

When You'll Learn

This bootcamp is immersive. Plan on spending 40-60 hours per week in class and working on your own time. Class runs from 9am - 7pm Monday through Thursday, plus 10 pre-scheduled Fridays from 9am - 7pm.

You can use your Fridays off to rest, restore, and reflect, which are powerful metacognitive tools for learning.

TYPICAL WEEKLY SCHEDULE

	MON	TUE	WED	THU	FRI	SAT	SUN
IN CLASS	9am-7pm	9am-7pm	9am-7pm	9am-7pm	9am-7pm during 10 prearranged weeks		

What You'll Learn

MODULE 1 & PROJECT [WEEKS 1-6]:

Dive into the world of a full-stack software engineer. These subjects represent the core knowledge and skills that are used in nearly every software engineering job.

- Turn software requirements into a running application with Python and Django
- Write HTML and CSS to build working and interactive web applications
- Use a relational database to store and retrieve data for an application
- Use Visual Studio Code (VSCode), Bash or PowerShell, and Git to create high-quality code and projects

Project: Build your first full-stack web app

Your first project uses everything you've learned thus far to build a meaningful full-stack web application. You'll design the database, write the server code to create the responses to drive the application experience, and author the client code to render an attractive, intuitive, and responsive web application interface.

MODULE 2 & PROJECT [WEEKS 7-12]:

Building on the first module, you'll explore how to build even more complex web applications using modern software architectural methods.

- Use Domain Driven Design to model and design large software applications
- Build scalable and fault-tolerant applications using messaging middleware
- Apply the latest design and technical principles to create microservices
- Create stand-alone web application front-ends using JavaScript and React

Project: Developing software in a collaborative environment

Your second project models how you'll work in a real-world software development team, utilizing the power of independent development in a collaborative environment. You and your team will use Agile software development practices to individually build microservices that seamlessly work together to create a robust and scalable web application.

What You'll Learn

MODULE 3 & PROJECT [WEEKS 13-18]:

Combine what you've learned so far with new skills to manage large amounts of data. Then learn development, security, and operations (DevSecOps) to harness the power of the cloud.

- Build near-real-time applications that automatically update all User Interfaces (UIs) with WebSockets and FastAPI
- Learn how to effectively use the AI-powered tool GitHub Copilot
- Write algorithms that work with different shapes of data
- Use different types of persistent data stores for different kinds of data with MongoDB
- Plan, create, and monitor a continuous integration and delivery pipeline with GitLab Pipelines

Project: Build a durable, responsive web app using a cloud platform

From a provided set of requirements, you'll build your own personal project. You'll emulate the day-to-day work of an individual contributor on a software development team, learning about the software development life cycle, good version control management, and production-level systems.



What You'll Learn

MODULE 4 [WEEK 19]: CAREER SERVICES FOCUS

At this stage, you'll begin your job search. Throughout the program, our Career Services team leads lessons and workshops related to preparing your resume, building your portfolio, and more. During the final week of the program, you'll go through intense job search preparedness, including:

- 1:1 coaching sessions with your Career Services Manager (CSM)
- Mock interviews
- Portfolio and resume building
- Professional development workshops
- Networking exercises

Upon graduation, you'll have access to our 14,000+ alumni network and [alumni benefits](#). You'll continue working with your CSM for 180 days or until you land your first software engineering job. Your CSM will help you through the job search process, including guidance and support through challenges, and helping you negotiate salary upon receiving an offer.



Software Engineering with JavaScript & Python

How You're Evaluated During the Program

Careers in software engineering are both rewarding and rigorous. This program is designed to replicate the challenging environment you'll see in the real-world so you're prepared for your new career. To do so, we evaluate students based on the following criteria (as applicable to a given lesson and/or module):

- Daily problems
- Individual, paired, and group assignments
- Regular assessments
- Individual and group projects
- Staff and peer reviews
- Professional resume

Your Real-Time Support Team

During the program, we surround you with a robust support team to help you through challenges and celebrate wins.

- Experienced Instructors
- Residents (Teaching Assistants)
- Cohort Leads
- Career Service Managers



Ready to
get started?



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