

## **PART-TIME CODING BOOTCAMP**

### **PROGRAM OBJECTIVE**

Our Coding Bootcamps are accelerated full-stack bootcamps integrated with the most relevant technologies our students will use in their next career. The skillset we equip our students with are languages and technology that are currently being used in business-critical applications today.

### **PROGRAM PREREQUISITES**

The acceptance process always starts with a conversation with our Bootcamp Specialist. One of the goals of the conversation will be to determine if this bootcamp is a match to the student's career goals. Once that is clarified, the complete our mini assessment.

The student will then meet with the Bootcamp Specialist to further discuss the program and their career goals. At that time, an online computer programmer Logic and reason aptitude test will be administered. The student will have to score a minimum of 75 to get accepted and move forward in the process.

### **PROGRAM LENGTH**

Program is eleven (11) weeks in length, Monday through Friday, 9:00 AM – 4:30 PM with a one-hour lunch break daily. The part-time bootcamp is delivered in 25 weeks, 14 hours a week, Monday and Wednesday 6pm -9.30pm, Saturday 8:00 am - 4:00 pm.

### **PROGRAM COURSES**

- Git/GitHub
- MySQL
- Java, JUnit, TDD
- ORM / Spring / JPA
- C#
- Scrum
- HTML/CSS/Bootstrap
- JavaScript, jQuery
- TS / Angular
- Career
- Projects

### **INDUSTRY JOB TITLES:**

- Quality Assurance
- Computer Programmer
- Web Developer

- Software Developer
- Database Administrator

## **COURSE DESCRIPTIONS**

### **GIT/GITHUB**

In this module, the student will learn the basics of source control management and how it is accomplished in a distributed environment.

### **MYSQL**

The student will learn and practice the SQL Statements that every developer needs to retrieve and update data in a MySQL Database; design databases like a DBA and implement them with either SQL statements or in MySQL Workbench; gain professional skills such as using views, stored procedures, and functions.

### **C# .NET**

In this module, the student will learn how to use Visual Studio, C# and the .NET classes to develop Windows applications.

### **JAVA**

Students start by learning core programming fundamentals, in the Eclipse Spring Tool Suite IDE, such as defining variables, control structures and writing simple console applications. Next they will learn full object-oriented development skills such as writing classes and methods and using inheritance / interfaces. They'll learn the Java Collections framework to properly store lists of objects, the File IO structures to process files, and JDBC (Java Database Connectivity) to connect a Java application to a database. Finally, students are introduced to JUnit and TDD in an introductory session where they learn to build test cases in Eclipse STS.

### **ORM TECHNOLOGIES: JPA AND HIBERNATE**

This module introduces JPA (Java Persistence API), an Object-relational mapping (ORM) tool used to simplify Java statements calling the Database. We discuss entities, the annotations needed to map those entities to database tables and discuss Hibernate which is another ORM library which sits atop JPA.

### **SPRING BOOT & SPRING FRAMEWORK**

The student will use Spring Boot to build their be introduced to the Spring Framework, specifically Spring Web. The students will build RESTful web services, coupled with Spring Data JPA, to return JSON responses utilized by the Angular front end. Students will also utilize Maven for project builds.

### **HTML/CSS/BOOTSTRAP**

The student will learn to build HTML pages with text, links, images, tables and forms plus use style sheets (CSS) along with Bootstrap for colors, backgrounds, formatting text and page layout.

## **JAVASCRIPT/JQUERY**

In this module, the student will learn JavaScript the way it is most commonly used today – with the latest tools and most up-to-date techniques to start creating dynamic web apps. The student will also learn how to work effectively with JavaScript frameworks, functions and modern browsers plus how to use the most effective coding practices using HTML5.

## **ANGULAR/TYPESCRIPT**

The student will learn the current version of Angular and Typescript to build Single-page applications (SPA) that access JSON services. The application will create services to make the AJAX calls that provide data that is data-bound to the user interface.

## **CAPSTONE PROJECT**

The Boot Camp Capstone project is a comprehensive software development project that each student is required to complete and get certified in order to graduate from the boot camp. This Project is a professional-level, full-stack, web application with an enterprise-level SQL database. It includes an object-oriented middle layer exposing by RESTful Web Services, and an Angular Single Page Application (SPA) web interface. Each student creates this project individually throughout the bootcamp writing every line of code themselves while working in and out of the classroom. Students will likely work 80 to 120 hours on this project and will leave the boot camp with this full stack application as evidence of the foundational development skills they've learned.

## **OFFICIAL SCRUM.ORG TRAINING**

Scrum Framework - Students dive into the Scrum software development framework including, roles and responsibilities, principles, artifacts, and events and time boxes, rules, and customs.

## **CAREER SERVICES AND PREPARATION**

StrengthsFinder 2.0, Emotional Intelligence in the Workplace, Resume Preparation, Technical Interviewing and Acing the Behavioral Interview.