

MAXIMUM 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 Success Specialist. One of the goals of the conversation will be to determine if this bootcamp is a match to the applicant's lifestyle and career goals.

The applicant needs to have basic computer skills, Windows Essentials, and File Management knowledge. Once these prerequisites are confirmed, the applicant will take a computer programmer logic and reasoning aptitude assessment.

PROGRAM LENGTH

Program is thirteen (13) weeks in length, Monday through Friday, 9:00 AM – 4:30 PM with a one-hour lunchbreak daily.

PROGRAM COURSES

- Git / GitHub
- SQL Database
- C#.Net & Java
- EF / MVC / WebAPI
- Spring Framework
- Scrum
- Hosting
- HTML / CSS/ Bootstrap
- JavaScript / jQuery
- Angular / Typescript
- Capstone Project
- Career Preparation and Services

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.

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

C# .NET & JAVA - In this module, the student will learn the foundational concepts of programming. The student will learn how to use Visual Studio, C#, Entity Framework and the .NET library classes to develop Windows web applications along with Eclipse, Java, Hibernate, Spring and the Java library classes to develop Java web applications. How to use C# and Java to communicate to SQL databases directly. How to use object-oriented programming to correctly use business classes, encapsulation, inheritance, polymorphism, and composition along with interfaces the way they are productively used in the real world. At the end of the topics for these general-purpose languages, the students will do their capstone in both technologies.

EF / MVC / WEBAPI - The student will be introduced to the MVC design pattern; how to start an ASP.NET application; how to use controllers, models, and WebAPI to communicate in JSON. This module introduces Entity Framework Core, an object-relational mapping tools to SQL Server. The module includes using LINQ to provide easy access to creating, modifying and reading SQL Databases.

SPRING FRAMEWORK - The student will 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. For Hibernate we discuss entities, the annotations needed to map those entities to database tables and discuss Hibernate which is ORM library which sits atop JPA.

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

HOSTING - The hosting topic reviews the multiple facets required to host a .NET application in the cloud. It includes:

- Managing remote hosting via control panel
- Creating and maintaining databases in the cloud
- Operating and maintaining IIS web services
- Web Applications versus Virtual Directories

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.

CAREER SERVICES AND PREPARATION - StrengthsFinder 2.0, Emotional Intelligence in the Workplace, Resume Preparation, Technical Interviewing and Acing the Behavioral Interview, LinkedIn, Effective Job Search.

CAPSTONE PROJECT - The Bootcamp Capstone project is a comprehensive software development project that each student is required to complete and get certified to graduate from the bootcamp. 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 both in and out of the classroom. Students will likely work 80 to 120 hours on this project and will leave the bootcamp with this full stack application as evidence of the foundational development skills they've learned.