Syllabus

Fullstack Development Bootcamp

An immersive, online web development course to prepare you for a successful career as a fullstack developer

re:coded

As of 2021, the tech talent shortage amounted to 40 million qualified developers and engineers worldwide, expected to reach 85.2 million by 2030

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Overview

As a developer, you get to be the person that builds the next culture-shifting website or web application. A rapidly changing tech landscape means the web development industry continues to grow quickly, and is expected to grow by at least 13% in the next decade.

The widespread need for developers across all industries means there's likely a job waiting for you wherever you want to live. And if you've got persistence, grit, curiosity, and a brain that likes to solve puzzles, web development could be the career for you.

During the time spent with Re:Coded's community, students learn to think, and build, like software developers.

In each curriculum module, students develop key skills through interactive labs, lectures, and close collaboration, showcasing progress through Portfolio Projects. While the bulk of the material covered occurs within the JavaScript, Node.js, and React ecosystem - also popularly called the MERN stack, we carefully design our curriculum to prepare students to launch software development careers, independent of any specific language or technology.

By the completion of the program, students have done so much more than simply build technical skills: they have contributed to real products with a team and built a portfolio that they can show to employers as they enter the job-search phase with the support of our Career Services team.

But we know that there's more to getting hired than having a great portfolio and technical knowledge.

Our curriculum includes built-in career development, so you can enter the job market confident and prepared. You will get access to our Career Prep Curriculum throughout the bootcamp and upon graduation.

You'll also be matched with an industry mentor to help you define your career plan and polish your resume and application materials, and practice your interviewing skills.

Common job titles of Re:Coded web development graduates include web developer, junior frontend or backend developer, and fullstack developer. Graduates have been hired at some of the top startups and companies across the region.

Fullstack Bootcamp

Full Time | 26 weeks

Our fullstack curriculum is a mix of content developed by our team of experienced trainers and content by our partners at Flatiron School, which was voted the World's Best Coding School in 2020.

Bootcamp launch

- Meet your cohort & trainers
- Understand the class structure & expectations
- Required technology and support

Module 1	HTML, CSS, Git
Module 2	JavaScript fundamentals
Module 3	React
Module 4	Introduction to backend
Module 5	Databases
Module 6	CRUD & Data Models
Module 7	Authentication & Security
Module 8	Testing
Module 9	Capstone project

Module 1 HTML CSS Git | 2 weeks

HTML & CSS: Students master the basic building blocks of how the web is rendered and become familiar with the language that makes the web beautiful. They additionally learn how to conceive of and build UIs for web apps by writing well-structured HTML and CSS.

Git: Students begin exploring version control using git commands and GitHub, including cloning, branching, merging, rolling back commits, forking, and submitting pull requests.

Module 2 JavaScript Fundamentals | 3 weeks

Students gain a thorough understanding of JavaScript – the language that powers the user experience of the web. They learn the basics of JavaScript syntax and its functional architecture using native or "vanilla" JavaScript (before they learn to work with React or Node.js), establishing a strong foundation that will allow them to generalize their programming knowledge.

Module 3 React | 4 weeks

Students learn to build productive and scalable frontends with React.

Using plain JavaScript with large web applications quickly becomes unruly. Initially created by Facebook, React is the premier JavaScript framework for building fast web user interfaces.

This unit starts with the fundamentals of React components and state. After building a minimal React app, students conquer the complexities of React such as React Router and then quickly move into learning about advanced state management with Redux.

After completing this module, students will work on a frontend mini project building a web application that will effortlessly consume APIs, render data quickly, and scale as its complexity increases.

Module 4 Introduction to backend | 2 weeks

After 9 weeks of mastering frontend skills, students move on to learn about building the backend. Writing backend code requires an intimate understanding of REST and the request-response lifecycle. Students will learn how to build and run a local server with API endpoints using Node.js and Express.js, handle GET, POST, and other HTTP requests, perform validations and return a structured response. Students will also learn basic server-side rendering, API building best practices and API documentation tools.

Module 5 Databases | 1 week

Web applications that persist data between user visits inevitably use a database. Students will familiarize themselves with the relational and non-relational databases used in today's ecosystem and their query languages: MySQL, PostgreSQL, MongoDB, Elasticsearch. Students will also explore the advantages and disadvantages of each technology, understanding the appropriate use cases for each one.

Module 6 CRUD & Data Models | 1 weeks

A high proportion of backend applications can be distilled into four simple operations: Create, Read, Update, and Delete - otherwise known as CRUD. Students learn to connect their Express.js server to a MongoDB database using Mongoose.js, build a schema for the data collections, and implement models and controllers to perform CRUD operations.

Module 7 Authentication & Security | 1 week

A website is often a personal experience, but to achieve that requires the concept of user authentication and API security. Students will learn to leverage existing frameworks such as Passport.js along with learning what's under the hood by implementing authentication using JWTs in API requests, managing sessions and cookies, understanding password hashing, and securing APIs.

Module 8 Testing | 2 weeks

No company can scale beyond a small project without automated testing. Students will learn about unit and integration testing, in addition to learning best practices surrounding writing clean, modular, and hermetic tests. This unit will emphasize not only writing tests as a means to verify robustness of code, but also utilizing test-writing as a developer mindset for writing safe code.

After completing this module, students will work on a backend mini project building a functional REST API that supports CRUD operations by connecting data models with a persistent database with an authentication system using specific auth strategies. This is a week of hands-on practice tying together all the backend concepts learnt over the bootcamp.

Module 9 Capstone Projects | 6 weeks

After completing the bootcamp curriculum and skills training phase, students will work collaboratively in teams of 5-6 and apply their technical and soft skills to design and build a fullstack web application which they can showcase to prospective employers upon graduation. This opportunity is not only meant to master all the technical coding skills but also practice essential soft skills like teamwork, effective communication and agile project management.

The Career program

A 3-phased approach

1 Career Preparation | 18 weeks

- Build a winning profile
- Improve your industry knowledge

We understand the importance of standing out from the competition, and that's why we provide career prep resources and guidance to help you create an outstanding professional profile and improve your industry knowledge through career-focused sessions. This phase runs alongside the technical skills training phase in the bootcamp.

2 Career acceleration | 2 weeks

- Connect with expert mentors from the tech industry

We believe that mentorship plays a crucial role in professional growth, and our program provides you with the opportunity to learn from experienced professionals who have achieved great success in their career. The mentor will help you review your profile, including resume and LinkedIn, and will provide invaluable support in preparing you for technical and behavioral job interviews. This phase runs right after the capstone projects.

3 Career placement | 24 weeks

- Match-making event, connecting with our hiring partners
- Receive responsive support

In this final phase, we provide various avenues for you to secure your job. We organize match-making events where you can directly connect with potential employers who are actively seeking talented individuals like you. Additionally, we are building partnerships with hiring companies, enabling us to recommend you to our network of trusted organizations. This phase runs after bootcamp graduation.

While the linear progression of our curriculum is focused on building technical skills, our aim is to teach students how to become software developers—which is distinct from simply knowing how to code. Students engage in a number of activities that hone their communication and collaboration skills and immerse themselves in the technical community, helping build the foundation needed to grow as software developers in the future.

What makes a Software Developer?

Portfolio projects

At the conclusion of each program milestone, students build advanced Portfolio Projects to demonstrate the technical skills they've gained and their creativity. Portfolio Projects represent an opportunity for students to explore specific technologies that interest them in building fully functional web applications to impress employers.

Technical presentation

Students build their credibility as developers by presenting their final Capstone Project in a Project Demo Day event, explaining the functionality of their websites, what tools they used and why.

Active Github profile

GitHub is the modern software developer's resume. Students push every line of code they write at Re:Coded to GitHub while working on assignments through our learning platform - Canvas, giving them an extensive profile to show employers and fellow engineers.

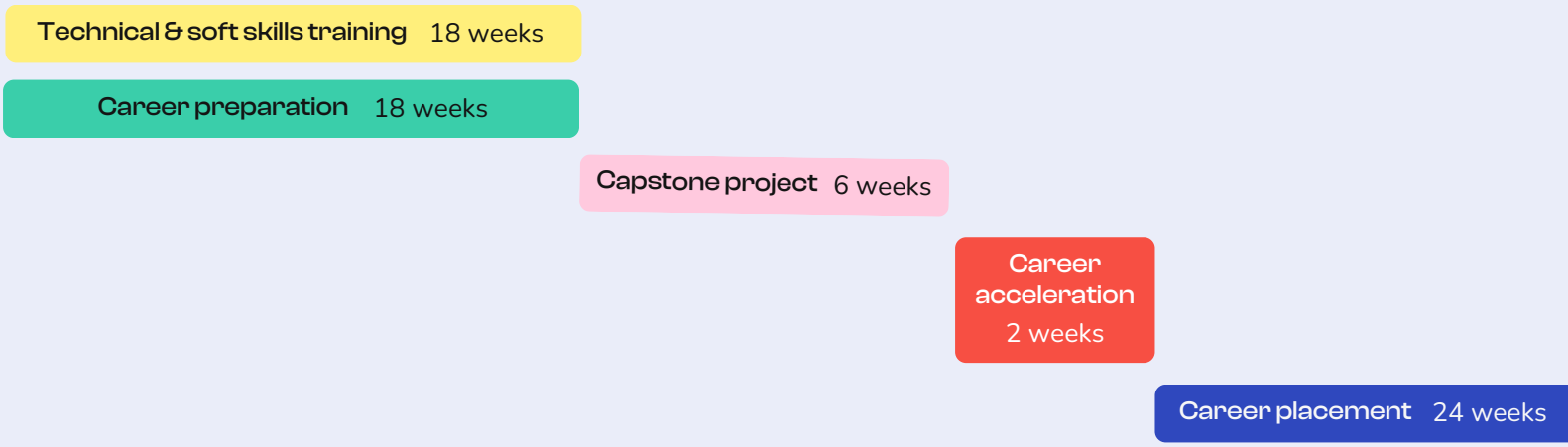
Program structure

Re:Coded's curriculum is built on three pillars:

- Technical Mastery
- Professional Skills
- Industry Fluency

Throughout the bootcamp and career services, students not only master technical skills but also core competencies such as perseverance, teamwork, and a growth mindset to succeed in the workforce.

Timeline



Program pace & schedule

Full time
25:1 student-trainer ratio

Length

26 weeks

Time Comittment

- 20 hours per week of individual, self-paced work on our online curriculum
- 10 hours per week of live classes
- 2 hours per week of office hours with trainers
- The bootcamp schedule will accommodate 1-2 weeks of break time for students to rest.

Admissions

3-phase selection (selection criteria apply):

- Application form
- Coding challenge & mindset assessment
- Final interview

300+ hours of curriculum

Students get access to the curated Fullstack Web Development curriculum hosted on our Learning Management System - Canvas

Live online classes

Students will have live classes three times per week with their assigned cohort and trainers.

Your classmates

Cohorts are made up of 50-75 students who will go through the 26 week program together beginning to end and work on group projects collaboratively

Career service

Students receive:

- Access to Career Prep Curriculum
- 1:1 Mentoring Sessions
- Profile Reviews (CV, LinkedIn, GitHub, Portfolio Website)
- Mock Interviews
- Employer Matchmaking
- Career events and workshops

Technical mentorship

Job seekers will be assigned industry expert technical mentors during the career acceleration phase.

Get in touch!

For more information, please check out our website at www.re-coded.com
or contact us at re-coded@re-coded.com