Software Engineering Fundamentals

Pre-work for Software Engineering Immersive. Level-set on foundational software engineering skills. **14 hours.**

Welcome to Software Engineering Immersive

Introduction to HTML
- Introduction to HTML
- Adding Content to a Webpage
- Formatting and Organizing With HTML

Introduction to CSS
- HTML, Meet CSS
- Styling Text With CSS
- Adjusting Layout With CSS
- Responsive Layouts

JavaScript Fundamentals
- Introduction to JavaScript
- Arrays and Objects
- Control Flow
- Functions
- The DOM
- Browser Events

Developer Tools
- Accessing and Navigating the Command Line Interface
- Git for Version Control
- Intro to GitHub

Software Engineering Immersive

INSTRUCTOR-LED | 480 HOURS | ONSITE OR REMOTE

OVERVIEW
General Assembly's Software Engineering Immersive is a full-time career accelerator that's designed to transform students from novices to job-ready, full-stack software engineers. Students leave with a solid base of fundamental programming and computer science knowledge, as well as experience with languages, frameworks, and libraries that employers demand.

DELIVERY OPTIONS
- 12 weeks full-time
- 24 weeks part-time

OUTCOMES
- Design, build, test, and deploy full-stack web applications from scratch.
- Following industry best practices, collaborate with other developers by adding features to a shared application.

IDEAL FOR
- Anyone looking to transition into a career in front-end, back-end, or full stack web development.

PRE-WORK
Learners are assigned 14 hrs of online pre-work from Software Engineering Fundamentals to prepare for class.

AGENDA

Front-end Development
Recap and reinforce topics from pre-work (HTML, CSS, JS, command line, etc), and extend beyond them to cover topics like APIs.
Project: Work individually to build a front-end web application that users can see and interact with, leveraging JavaScript, APIs, and more.

Full Stack Development
Learn to build full-stack web applications, deepening your knowledge of client-facing and server-side development.
Project: Via Heroku, deploy an authenticated full-stack application that stores data in a SQL or NoSQL database.

Front-end Frameworks
Gain expertise with the modern software engineering tools and frameworks you'll use on the job. Through pair programming and group collaboration, you'll gain hands-on experience executing a real-world agile workflow.
Project: Build and deploy a full-stack application using a front-end JavaScript framework — i.e., Angular, React).

Advanced Exploration
Dive into computer science concepts such as algorithms and data structures to become a more efficient programmer and perform confidently in technical interviews. Get creative, building a full-stack application using technology you choose.
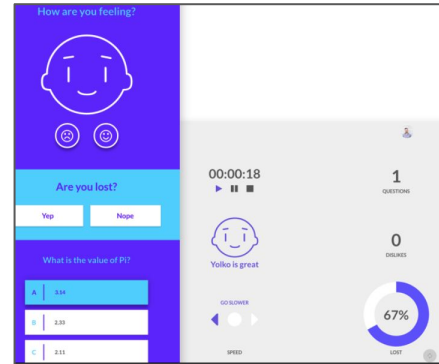Capstone Project: Apply what you've learned throughout the course to mimic a team-client interaction, collaborating to build and deploy a full-stack application that fulfills provided specs.
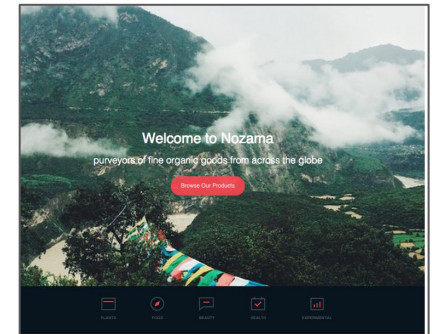
Software Engineering Immersive

SAMPLE PROJECTS

Real-Time Feedback App
Tracks user feedback during presentations in real-time and displays results.

eCommerce Storefront
Has a full listing of products, product detail pages for each product, and a functional shopping cart that is capable of processing payments via the Stripe API.

CRM Tool
Manages contact data, appointments, and notes, and sends push notifications in response to certain events.