Tyler Coleman

Education

Tufts University – Medford, Massachusetts BS Electrical Engineering '17, cum laude

Coursework: web development - data structures - digital signal processing

communications systems - linear systems - feedback control systems

computational physics - microprocessor architecture - probabilistic systems analysis

Experience

Pacific Gas & Electric (contracted) – San Francisco, CA

Software Engineer – September 2017 - present

- Analyzed business requirements and developed test scenarios for new rate schedules.
- Improved efficiency by automating existing procedures utilized by offshore testing teams.

Autoliv Active Safety - Lowell, MA

Technical Intern – Summer 2016

- Contributed to bring-up of narrow-band radar sensor prototype for automotive use.
- Conducted critical review of hardware design to identify potential weaknesses.

Projects

Burger Builder - React.js - burger-builder-b1bbd.firebaseapp.com

- A simple React app that allows users to build and "order" burgers with an interactive interface.
- Integrates concepts such as form validation, routing, and responsive design.

Rate My Lunch - React.js, Redux - rate-my-lunch.firebaseapp.com

- Developed a faux social media where users can post and vote on other users' lunches.
- Integrated React front-end with RESTful back-end to enable data persistence using Firebase.

Web Game Development – Express, Phaser, Socket.io

- Built UI and REST API for a real-time, multiplayer TRON clone, including a matchmaking system.
- Enabled data persistence and stat-tracking by integrating a NoSQL database and a login system.

Automated Cough Counting System – PIC24, embedded C

- Designed a wearable device in conjunction with the Hospital Nacional Dos de Mayo in Peru.
- Analyzed microphone and accelerometer inputs in real time to profile cough samples.

Fractal Generation - C++

• Implemented escape-time algorithm for Mandelbrot set to generate bitmap images with controllable histogram coloring and zooming.

Skills

- Object-oriented analysis, design, and development
- Front-end and back-end web development
- Design and execution of software test plans
- Technical and non-technical communications

Languages: C++ (advanced), C (proficient), Java (prof.), Visual Basic (prof.), MATLAB (prof.),

JavaScript (prof.), C# (prior exp.), Python (prior exp.), SQL (prior exp.)

Tools: React.js, Redux, jQuery, Unity, Selenium