




# Tyler Coleman

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## Skills

### Programming Languages

JavaScript ES6, HTML, CSS, C++, Java, Visual Basic, MATLAB, SQL, VHDL, x86 Assembly

### Frameworks and Libraries

React, Node, Redux, jQuery, Boost, Unity, NumPy, SciPy, OpenCV

### Services, etc.

AWS, MongoDB Atlas, Firebase, Cloudinary, Git, JIRA

## Education

### Tufts University

B.S. Electrical Engineering, cum laude  
Aug 2013 – Aug 2017

### Coursework

Microprocessor architecture, data structures, DSP, web development, communications systems, linear systems, feedback control systems, computational physics (Python), probabilistic systems analysis

## Projects

### Hot Lunch - [hot-lunch.herokuapp.com](http://hot-lunch.herokuapp.com)

*React.js, Redux, Node.js, MongoDB Atlas, Cloudinary, Firebase*

- Designed a social media service based on an interactive rating system, allowing users greater influence over the content that reaches their friends.
- Utilized React to develop a seamless, sleek front-end that encourages engagement via interactive UI components.
- Crafted CSS modules for a variety of components and containers.
- Defined and implemented all endpoints for RESTful server API using Express.
- Developed drivers to link server with multiple cloud-based services to enable data persistence.

### Interactive Fractal Explorer

*C++, SDL graphics library*

- Developed a desktop application that allows users to explore a Mandelbrot fractal and customize its appearance with controls for histogram coloring and resolution (for a performance tradeoff).
- Program tracks nearly **500,000** pixels and redraws them as the user zooms and pans.

### Light Cycles

*Phaser2D, Node.js, Socket.io, MongoDB*

- Developed a multiplayer TRON clone for browser play, with real-time head-to-head gameplay and matchmaking enabled by Socket.
- Implemented advanced stat tracking and data persistence for registered players via a NoSQL database.

## Work Experience

### Tata Consultancy Services

Sep 2017 – Oct 2018

*Software Engineer*

- Directed an overseas team of manual testers, coordinating efforts and maintaining regular communications.
- Reduced manual test times by **50%** by automating existing procedures using tools like VB and Selenium combined with complex SQL database manipulation.

### Autoliv Active Safety

May 2016 – Sep 2016

*Technical Intern*

- Performed bench analysis of failing radar devices to identify root causes of malfunctions. Maintained communications with clients regarding test and fix progress.
- Explored and identified areas for device improvement via a vast analysis of hardware design and cross-team collaboration.