

Arnob Dam

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Professional Experience

United States Air Force, Foreign Military Sales Branch

Aug 2020 - Jan 2023

Full-Stack Software Engineer

- Provided engineering support for the Qatar Air & Missile Defense Control Center teams (\$1bn total portfolio)
- Developed RESTful APIs, used Agile / SCRUM during test-driven development, pair-programmed, tested 200+ requirements
- Utilized JavaScript, including DOM manipulation and the JavaScript object model, via React with Redux, for the front-end
- Coded Java, Express.js & Node.js for the back-end, implemented PostgreSQL and AWS S3 databases
- Liaised with the Qatari Air Force's engineering lead four times per year, presented current Agile status
- Provided risk management concerning cost, schedule & performance, hosted monthly risk review boards

Washington University in St. Louis, McKelvey School of Engineering

Aug 2016 - May 2020

Engineering Lab Researcher & Tutor

- Conducted data mining and statistical analysis on 800+ datasets via MATLAB in financial engineering & operations research
- Created algorithms and mathematical models predicting financial markets' behavior
- Tutored fellow undergraduates in math, systems engineering and computer science classes, increased students' grades by 15%

Boeing

Jun 2019 - Aug 2019

Finance Intern

- Performed financial analysis on the engineering cost of function of the 737 MAX airplane
- Submitted reports to Boeing's engineering division CFO & chief engineer theorizing 5-10% saving cuts for 737 MAX program

Torrey Partners LLC

Jun 2017 - Aug 2017

Investment Banking Intern

- Assisted acquisition of a mid-cap, \$50m valued biotechnology company
- Performed financial analysis and constructed financial models via MS Excel

Programming Skills React.js, Redux.js, JavaScript (ES6), Ruby, Ruby on Rails, Git, API, SQL, NoSQL, PostgreSQL, MongoDB, Mongoose, Express.js, Node.js, HTML5, CSS3, jQuery, RSpec, AWS S3, MATLAB, Java

Education

Washington University in St. Louis

Aug 2016 - May 2020

Bachelor's Degree (BS) in Systems Science & Engineering, GPA 3.70/4.00, Minor in Computer Science

Projects

Symphonify (Ruby / Rails, React / Redux, JavaScript, HTML5, CSS3, PostgreSQL, AWS S3)

[Live Site](#) | [GitHub](#)

Pixel perfect Spotify clone

- Harnessed React-Redux single-state management to implement well-rounded CRUD functionality for playlists and user login
- Exploited Redux patterns to maintain to an ever-present music slice of front-end user interface (UI) state via the playbar
- Optimized Rails backend routes and shape of front-end state to minimize load-time for process-heavy user experience (UX)
- Engineered a real-time search feature using debouncing around a recursive algorithm, filters albums by title or artist name

Express (MERN Stack, MongoDB, Mongoose, Express.js, React / Redux, Node.js, NoSQL, HTML5, CSS3, Nivo) [Live Site](#) | [GitHub](#)

Point-of-Sale system

- As project lead, developed and troubleshooted front- and back-end, set daily schedules for team members, led team meetings
- Implemented user auth by encrypting user details via JSON Webtoken library, wrote model level validations for credentials
- Forged RESTful routes via Express.js pertaining to menu products, categories, orders & order history
- Incorporated Nivo, which is built on top of D3.js and React, to create a ring chart data visualization of the current order

Gorillas (JavaScript, HTML5, CSS3)

[Live Site](#) | [GitHub](#)

Projectile motion game

- Utilized projectile motion physics, gravity, and vector math to create the path of the banana thrown by both gorillas
- Constructed an algorithm which dictates the AI gorilla is successful with his throw 10-15% of the time
- Implemented custom object collision functions between the bananas, gorillas, and pseudo-randomly generated landscape