Arnob Dam

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Experience

United States Air Force, Foreign Military Sales Branch   Aug 2020 - Aug 2022
Software Engineer
- Provided engineering support for the Qatar Air & Missile Defense Control Center teams ($1bn total portfolio)
- Tested systems' front-end, back-end, and hardware usage efficiency via Agile / Scrum methodologies
- Liaised with the Qatari Air Force's engineering lead on a seasonal basis and 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
Undergraduate Researcher & Tutor
- Conducted data mining and statistical analysis via MATLAB at a financial engineering laboratory
- Created algorithms and mathematical models predicting financial markets' behavior
- Tutored fellow undergraduates in math, systems engineering and computer science classes

Boeing   June 2019 - Aug 2019
Finance Intern
- Performed financial analysis on the engineering cost of function of the 737 MAX airplane
- Developed and submitted reports to the engineering division chief engineer and CFO

Torreya Partners LLC   June 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

Education

Washington University in St. Louis   Aug 2016 - May 2020
Bachelor's degree in Systems Science & Engineering, GPA 3.70/4.00, Minor in Computer Science
Curriculum Highlights: Data Structures & Algorithms, App Development, Control Systems, Operations Research, Linear Algebra, Calculus I II & III, Probability & Statistics for Engineering, Computer Engineering

App Academy   Sept 2022 - Jan 2023
Immersive software development course with focus on full stack web development.

Skills

React.js, Redux.js, JavaScript, Ruby, Ruby on Rails, RSpec, HTML, CSS, MongoDB, Mongoose, Express.js, Node.js, Git, SQL, PostgreSQL, NoSQL, jBuilder, AWS S3, MATLAB, Java

Projects

Symphonify (Ruby / Rails, React / Redux, JavaScript, HTML, CSS, PostgreSQL, AWS S3)   [Live Site](#) | [Github](#)
Pixel perfect Spotify clone
- Harnessed React-Redux single-state management to implement well-rounded CRUD functionality regarding playlists and user login
- Exploited Redux patterns to maintain reference to an active music slice of front-end user interface (UI) state via the ever-present 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 utilizing debouncing around a recursive algorithm which filters albums by title or artist name

Express (MERN Stack, MongoDB, Mongoose, Express.js, React / Redux, Node.js, NoSQL, HTML, CSS, Nivo)   [Live Site](#) | [Github](#)
Point-of-Sale system built on efficiency, ease-of-access & sleek visuals
- As project lead, contributed to and troubleshooted front- and back-end, set day-to-day schedules for team members, led team meetings
- Implemented User Auth by encrypting user details via the JSON Webtoken library, wrote model level validations for email / password
- Created and implemented RESTful routes via Express.js pertaining to menu products, categories, orders & order history
- Utilized Nivo, which is built on top of D3.js and React, to implement a ring / pie chart data visualization of the current order

Gorillas (JavaScript, HTML, CSS)   [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
- Created 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