

SKILLS JavaScript, C++, C, Python, Java, Node, Express, MongoDB, React / Redux, Ruby / Rails, PostgreSQL, NoSQL, Active Record, Git, AJAX, RESTful routes, Object Oriented Programming

EDUCATION

UCLA - BS Electrical Engineering | 2016-2020 | GPA: 3.2

App Academy - A software engineering bootcamp with 1000+ hours of pair programming and immersive projects.

RELEVANT COURSEWORK

- Intro to Machine Learning
- Software Construction Lab
- Digital Signal Processing
- Intro to Data Mining
- Operating Systems Principles
- Design of Robotic Systems
- Intro to Computer Organization
- Computer Networks: Physical Layer
- Principles of Feedback Control

PROJECTS

Slack | (React / Redux - Rails 5 - ActionCable / Websockets)

[live](#) | [github](#)

A fullstack clone of Slack using Ruby / Rails and React / Redux

- Enabled instant messaging and live updates by establishing Websocket connections between users and the server using Rails 5's ActionCable, allowing users to access new messages without having to query the database.
- Ensured secure user authentication and seamless CRUD functionalities through model level validations, Active Record associations, and password encryption using the BCrypt algorithm to protect against database leaks.

Delicieux | (Express - MongoDB - Node.js)

[live](#) | [github](#)

A dynamically updating dietary and grocery management app built using the MERN stack

- Improved user experience by implementing a drag-and-drop feature to add recipes to their weekly plan by dispatching actions to the redux store via JavaScript event listener callbacks that fire upon button click.
- Streamlined component rendering and updating through efficient Redux state management that centralized data into a flattened and intuitive state tree, and avoided N+1 queries with eager loading into the preloaded state.
- Implemented a loading sequence that pulls all of a user's weekly plan, recipe, and profile data into the Redux state upon login, using Javascript promises to create chains of synchronous database queries.

Yelp Review Predictions | (Python - numpy)

A data mining engine that can predict user ratings based on user and business parameters and rating history

- Preprocessed an extensive database of user and business information to identify key parameters
- Implemented various data-mining techniques such as neural networks and K-means to accurately predict user reviews based on user and business characteristics and history.

Quadcopter Drone Design | (DSP - C# - EAGLE)

- Used breadboard circuits and an Arduino to test radio communication and motor control
- Designed and put together a PCB for a quadcopter drone that allowed for PID stabilization and radio control.
- Wrote C# code for an Arduino nucleo that ensures stable flight by using readings from a gyroscope and an accelerometer to make dynamic adjustments to rotor speed.