ALAN DAI

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EDUCATION

UC Berkeley - *BA Political Economy and Minor in Computer Science*   Dec 2019
- **Relevant Coursework**: Object-Oriented Programming, Data Structures, Machine Structures, Intro to AI Algorithms Principles of Data Science

AppAcademy - *Highly selective program web development program with a 3% acceptance rate.*   Jan 2021

EXPERIENCE

Clinical Service Integration intern *(Java, CVS ImageJ)*

University of Washington Medicine   Jun 2016 - Aug 2016
- Developed interface tools for a fluid-replacement app built on ImageJ image processing API using Java, speeding up burn victim ER processing while improving user accuracy
- Wrote a comprehensive, 10-page documentation on ImageJ customization for internal use, enabling and expediting any future developments using the API

PROJECTS

slapCloud *(React/Redux, HTML, CSS, Rails 5, PostgreSQL)*   **live** | **github**
- Constructed a wrapper React component using four different drag event listeners to enable modular drag and drop upload functionality without inserting much logic into wrapped components
- Applied z-index, flexbox, and rgba CSS properties to implement and position user modals to seamlessly integrate the login/signup process into features that require user authorization, improving user experience
- Hosted image and audio assets uploaded by the user onto S3 using Rails Active Storage, substantially reducing backend memory requirements while improving scalability

Dreamers *(MongoDB, Mongoose, Express, jwt, React/Redux, Node.Js)*   **live** | **github**
- Designed user and post models that emphasized embedding to reduce the total number of MongoDB collections by 30% and queries by 10% while maintaining atomicity.
- Leveraged mongoose, regex, and Promise.all to perform flexible searches on the database, enabling for a more powerful search tool that could query based on partial and exact matches across the post, user, and tag collections.
- Built out a robust Redux store to handle page-to-page state, simplifying frontend state management.

Milk *(JavaScript, Canvas, HTML, CSS, Webpack)*   **live** | **github**
- Utilized object inheritance to create a parent object for all loadable and movable objects to keep code scalable and DRY, reducing codebase redundancies by 15%.
- Implemented DOM manipulation with event listeners/handlers to build out introductory and instructional pages to provide users a seamless hands-on-keyboard, onboarding process.
- Animated the game using canvas and added keyup and keydown event listeners to enable user controls.

Spam Email Classifier *(Python, scikit-learn, matplotlib, seaborn)*
- Built and trained Python application for email classification with 94% accuracy using pandas and scikit-learn and visualized the results using seaborn and matplotlib

SKILLS

Web Development: HTML, CSS, React, Redux, Ruby, Ruby on Rails, NodeJS, Express.js, SQL, SQLite3, PostgreSQL, MongoDB, Mongoose, Webpack, jQuery, Canvas, S3, Git, Heroku
Data Science: pandas, matplotlib, scikit-learn
Languages: Javascript, Python, Java