Derek Li

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Summary

Recent graduate with strong communication skills looking to leverage experience building scalable web apps to solve problems.

Skills

Programming Languages: JavaScript, Ruby, Ruby on Rails, Python, C++, C, HTML5, CSS3, Git

Frameworks/Tools: React, Redux, Git, SQL, NoSQL, PostgreSQL, MongoDB, Express.js, Node.js AWS

Education

App Academy **06/2022 - 10/2022**

Immersive software development course with focus on full stack web development: Pair programming, Test Driven Development (TDD), Object-Oriented Programming (OOP), Data Structures and Algorithms

University of California, Davis – Bachelor of Science | *Computer Science* **09/2017 - 09/2021**

Projects

Viewr (JavaScript, React / Redux, Ruby / Rails, HTML, CSS, PostgreSQL, AWS) Live Site | GitHub

App Academy, San Francisco, CA **06/2022 – 10/2022**

Full-stack clone of Flickr.com, an image and video hosting service

- Implemented custom back and front-end user authentication by combining Rails conventions, Active Record, and customized React-Router higher order components for more pleasant user experience (UX).
- Connected the Rails back end to AWS S3 for media storage and organization while maintaining content security with AWS IAM, for improved scalability and performance.
- Developed full CRUD features for user posts and comments, and additional features such as favorites and photo tags.
- Created a search feature using the Rails backend to retrieve corresponding posts based on titles, tags, and users' names.

NBA Stats Visualizer (JavaScript, Chart.js, HTML5, CSS) Live Site | GitHub

Single page application that provides NBA players' stats

- Utilized the BallDontLie API to fetch average NBA player data and statistics per season in 6 major categories: points, assists, rebounds, steals, blocks, and minutes.
- Incorporated the Chart.js library to provide 6 separate, interactive, and responsive graphs for each stat.
- Leveraged Webpack and Babel to ensure a reliable uniform user experience (UX) across web browsers.

GrowTeacher (JavaScript, React / Redux, MongoDB, Express.js, Node.js) Live Site | GitHub

A MERN stack application that targets teachers and allows for them to seek help in getting supplies

- Led the front-end implementation of user authentication using React, posts and comments CRUD, and CSS styling for the website.
- Collaborated with 3 engineers, conducted peer code reviews, debugged major issues, and utilized GitHub pull requests to minimize merge conflicts and ensure the reliable integration of new features, and establish a comfortable workflow.
- Applied Mongoose populate method to fetch underlying related data across multiple collections from the database, save this data in the frontend state, and render it for the end user.

Connect Four (Java)

University of California, Davis **03/2021 – 06/2021**

A playable command-line interface Connect Four game for Player vs Player and Player vs AI

- Developed custom AI opponents by implementing the minimax and alpha-beta pruning algorithms to recursively search the game tree and evaluate potential moves by considering the current game state and the players' relative scores, and then choosing the most optimal decision.

SShell (C) **01/2021 – 03/2021**

A custom Unix-style shell, short for Simple Shell

- Engineered a functional shell from scratch, including support for basic commands such as ls, cd, and pwd as well as more advanced features such as piping and redirection.

File System (C) **01/2021 – 03/2021**

A FAT-based (File Allocation Table) file system on top of a virtual disk

- Designed and implemented a FAT-based file system, supporting up to 128 files in a single root directory, with full support for reading and writing files, creating and removing files, and mounting and unmounting partitions.

Volunteer Experience

UC Davis CS Club

Academic Tutor **09/2020 - 03/2021**

- Tutored 50+ students in lower division computer science courses: C, C++ syntax, data structures, problem solving techniques.
- Improved student comprehension of fundamental concepts, resulting in higher project completion rate and elevated mid-term exam scores.