James Wu

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Education

University of California Los Angeles

Bachelor of Science, Mechanical Engineering

GPA: 3.86

Dean's Honors List

Coursework: Data Structures and Algorithms; Intro to C++; Linear Algebra; Single and Multivariable Calculus

To be completed by June 2023: Computer Organization; Software Construction; Differential Equations; Discrete Math

Professional Experience

UCLA ACM - Hack Officer

November 2021 - Present

Expected Graduation: June 2025

- Directed an 8-week project-based series "<u>HackSpace</u>", overseeing 100+ people and guiding teams in app, web, and game development, resulting in 7 completed products by the conclusion.
- · Maintained the ACM <u>Hack</u> and <u>HOTH</u> websites with a team of 10 other developers using the Gatsby framework, updating the Hack Archive and Event pages with past/current workshops and HOTH gallery page with submissions.
- Developed curriculum and taught beginner-friendly workshops on <u>Swift</u> and <u>React Native</u> for a mobile development series (<u>Hack Sprint</u>) and a hackathon (<u>Hack on the Hill</u>) for UCLA students.
- · Built login/sign up page, puzzle page, themes, and assets for the "Bruin Odyssey" puzzle series using Next.js and Material UI.

DevX - Sike App *Mobile Software Developer*

April 2022 - Present

- · Spearheaded the design and implementation of Sike, a wellness app that gamifies journaling using user sentiment analysis.
- · Led the front-end development using React Native and built Home, Journal Entry, and Settings pages.
- Explored methods for natural language processing and currently corresponding with four engineers to develop a machine learning model that analyzes and quantifies the sentiment of a given text using TensorFlow.

Hussle Front-End Development Intern

January - April 2022

- · Constructed and implemented several screens and features of Hussle, an online marketplace app, using React Native.
- Built user profile page, saved posts screen and functionality, navigation within app, and an infinite-scroll user feed displaying all available services and products offered by the community.
- · Collaborated with graphic designers, application testers, and product management to develop and launch the functioning application on the iOS store within 4 months.
- · Integrated and applied over 15 unique and reusable components for front-end elements.

Projects

CNC Machine Monitor *Data to AWS and ASP.NET / React.js Web Application*

June 2022 - Present

- · Created a solution for Industry 4.0 machine metrics by monitoring CNC machines in shop to track production.
- \cdot Programmed a console app to collect data from CNC Machines via MTConnect and send to AWS cloud.
- · Built a REST API for CRUD operations for an AWS MySQL database.
- · Implemented a web app dashboard using React.js to display production status data using time charts for all machines, with real time and historical data. Informs users if machine is producing, waiting for operator, or requires service.

Bruin Meal Tracker React Native Application

March 2022

- · Created an app to easily identify whether a student was on track to be over or under their quarterly allotted meal swipes.
- · Implemented 3 screens that prompted users to enter their current swipes and meal plan before displaying results.
- · Developed an understanding of React Native applications and how to build front-end components of a mobile app.

Pathfinding Autonomous Rover Team Engineering Project

October - December 2021

- Designed, assembled, and coded a fully autonomous rover capable of navigating through a path, avoiding obstacles, and moving a target block to a given location with a team of four engineers.
- · Independently automated rover with C++ through the Arduino IDE, optimizing pathfinding implementation.

Skills

Programming: C++, Java, HTML/CSS, JavaScript, SQL, Python, Bash

Technologies: React Native, Git/Github, AWS, React.js