James Wu

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EDUCATION

University of California Los Angeles **Expected Graduation: June 2025**
Bachelor of Science, Computer Science **GPA: 3.9**
Dean's Honors List

Coursework: Introduction to C++, Data Structures and Algorithms, Computer Organization, Software Construction, Single/Multivariable Calculus, Linear Algebra, Differential Equations, Discrete Math, Physics Mechanics, Physics Electricity/Oscillations, Physics Magnetism/Optics

PROFESSIONAL EXPERIENCE

Sike **Remote**
Software Engineering Intern **04/2022-Present**
· Led the front-end development using React Native, building out three new screens and directly collaborating with 4 other software engineers.
· Refactored existing code to ensure best coding practices for scalability, resulting in increased efficiency putting us 3 months ahead of schedule.
· 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 **Remote**
Front-End Development Intern **01/2022-04/2022**
· Constructed and implemented several screens and features of Hussle, an online student marketplace app, using React Native.
· Built user authentication, saved post functionality, navigation, and a user feed displaying all services and products offered by the community.
· Collaborated with graphic designers, application testers, and product management to launch the application on the iOS store within 4 months.
· Integrated and applied over 15 unique and reusable components for front-end elements.

UCLA Association of Computing Machinery **Westwood, Los Angeles**
Officer **11/2021-Present**
· Directed an 8-week project-based series "HackSpace", overseeing 100+ people and guiding teams in app, web, and game development, resulting in 7 completed products by the conclusion, helping contribute to club recognition by the Engineering Society at UCLA.
· Maintained the ACM Hack and HOTH 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 technical workshops on Swift, React Native, and React.js averaging 200+ attendees.
· Proposed new teaching structures involving mentorship and marketing initiatives that resulted in a 70% greater retention rate within events.
· Built registration pages, landing page, leaderboard, themes, and assets for the "Bruin Odyssey" puzzle series using Next.js and Material UI.

PROJECTS

StackConnect **11/2022-Present**
· Created a full stack social media web application where users can post messages on a user feed, complete with user authentication. This was a 10 person team project that made use of the MERN technology stack– using MongoDB, Express.js, React.js, and Node.js.
· Spearheaded the design and implementation of the project, managing team members and providing overall direction, leading to a completed product within 3 weeks. Placed special emphasis on member wellbeing and established a weekly development workflow conscious of burnout.
· Built a REST API for CRUD operations for a MongoDB Atlas cloud database, designing endpoints and connecting back-end to front-end.
· Implemented a web app user feed using React.js to display posts from approved users in records, designing 10+ reusable components.

Computer Numerical Control Machine Monitor **06/2022-Present**
· Individually created a solution for Industry 4.0 machine metrics by monitoring CNC machines in shop to track production. This is a Data to AWS and ASP.NET / React.js full stack web application.
· 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 the machine is producing, waiting for an operator, or requires service.

Pathfinding Autonomous Rover **10/2021-12/2021**
· Collaboratively 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. The rover consists of an acrylic chassis, 3D printed wheels, ultrasonic sensors, and an Arduino brain.
· Independently automated rover with C++ through the Arduino IDE, optimizing pathfinding implementation with ultrasound data.

SKILLS

Programming: C++, Java, Python, JavaScript, TypeScript, SQL, Bash, HTML, CSS
Technologies: React.js, React Native, MySQL, MongoDB, ASP.NET, Node.js, Express.js, Swift, Git, AWS, Next.js