WESLEY LUU

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Education

California Polytechnic State University, San Luis Obispo　　　　　**June 2024 — GPA: 3.56**
Bachelor of Science in Computer Engineering　　　　　　　　　　　　*San Luis Obispo, CA*
Cal Poly Scholars Student — Dean's List: more than 7 quarters

Technical Skills

Programming Languages: Python, C, TypeScript, JavaScript, React, Next.js, HTML, CSS, Java, SQL
Developer Tools: Git, GitHub, AWS, MongoDB, Bash, Linux, LTspice, Xilinx Vivado
Software: Jira, Trello, TeamGantt, Microsoft (Word, PowerPoint, Excel)

Experience

Synergistic Intelligence　　　　　　　　　　　　　　　　　　**June 2024 − Present**
Fullstack Engineer | AWS, Node, React, JS　　　　　　　　　　　　*San Luis Obispo, CA*
- Enhanced UI/UX, boosting user satisfaction by 20% through the design of modular, reusable frontend components that align with page themes, improving consistency and user experience across the platform.
- Optimized MongoDB schemas and developed RESTful API endpoints, reducing data retrieval time by 30% and increasing response efficiency by 25%, while implementing robust authentication and authorization mechanisms to secure backend operations.
- Deployed and managed scalable applications on AWS (Elastic Beanstalk, EC2), ensuring 99.9% uptime and optimized resource utilization. Led project management using Jira, delivering features in 2-week sprints within an agile development framework.

California Cybersecurity Institute　　　　　　　　　　　　**April 2023 − June 2024**
Software Developer | Python, React, AWS　　　　　　　　　　　　*San Luis Obispo, CA*
- Redesigned the user interface of existing pages, achieving a more intuitive design that halved the volume of support tickets related to those pages by 50%
- Leveraged AWS DynamoDB to efficiently store and retrieve user information, optimizing data access speeds and managing hundreds of user profiles with enhanced performance and scalability.
- Followed Agile development cycles using Trello for both sprint management and task communication, and Git for version control. Presented progress in weekly meetings to receive constructive feedback and stay on schedule.

Projects

DemoStudios |*TypeScript, React, SQL*　　　　　　　　　　　**January 2024 − Present**
- Developed and styled front-end pages for a React-based music-sharing website, closely following Figma designs
- Engineered search filtering functionality using SQL queries, significantly improving search response times by 30%, which enhanced user engagement and satisfaction by streamlining access to hundreds of songs and stems.

Capstone Kinematic Arm | *C*　　　　　　　　　　　　　**September 2023 - March 2024**
- Constructed and designed a kinematic robotic arm for Mars exploration, implementing calibration methods and state machines to enhance precision in sample tube collection
- Streamlined and deployed testing methods to ensure kinematic arm can pick up sample within +/-5mm precision

Clubs

Hack4Impact | *Typescript, Next.js, AWS, MongoDB*　　　　　　**September 2024 − Present**
- Developed a full-stack application using Next.js and TypeScript from scratch, creating a Calendar Portal that improved volunteer coordination for a nonprofit, increasing scheduling efficiency by 30%.
- Architected responsive frontend features and implemented backend solutions with MongoDB, including RESTful APIs for user and event management.
- Utilized Git for version control and integrated AWS S3 for secure image uploads, collaborating with a cross-functional team to ensure project goals and adherence to best practices.

Awards

Quanser ACC Autonomous Vehicle Competition　　　　　　　**March 2024 - June 2024**
- **Achievement:** Advanced to the hardware phase of the Quanser ACC International Student Competition, where the team's software implementation of an autonomous vehicle earned them a spot among the top 10 teams out of 40, competing in Canada.
- Led a team of 5 in developing a self-driving car, focusing on the integration of advanced control systems and hardware. Implemented PID, Stanley Steering Controller, and Model Predictive Control (MPC) for precise speed and steering control.
- Achieved high accuracy in detecting traffic signs through computer vision and conducted rigorous testing for reliable performance.

Singify, 1st Place @ SLO Hacks Hackathon | *Python*　　　**November 2021 − November 2021**
- Won 1st place of 50 participants. Developed a "finish the lyrics" game using Spotify, YouTube Transcript, and YouTube Search APIs, coupled with speech recognition and visual machine learning. Uses artificial intelligence to detect player hand raises and Levenshtein pattern-similarity matching. Programmed API communication and functionality in Python. Presented and demoed project on-stage in front of participants, coordinators, and the panel of judges.

Cisco, 2nd Place @ SLO Hacks | *Python*　　　　　　　　　**April 2021 − April 2021**
- Won 2nd place of 45 participants. Coded a chatbot which understands users' questions about COVID-related data, and compile a response with relevant, up-to-date statistics. Used a web scraper to generate an API for the chatbot to receive data used to answer users' questions. Programmed in Python.

References

Rob Randle **Manager**
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