Summer Cai

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EDUCATION

California Polytechnic State University, San Luis Obispo   **Jun. 2025**
B.S. Computer Engineering, Minor in Statistics   *San Luis Obispo, CA*
- Overall GPA: 3.6/4.0, Dean's List
- Relevant Coursework: Data Structures, Algorithms, Object-Oriented Programming, Statistics, Systems Programming, Computer Architecture, Database Systems, Microcontrollers and Embedded Applications
- Campus Involvement: Women in Software and Hardware, Prototype Vehicles Laboratory (PROVE)

SKILLS

- Programming Languages: C, C++, Python, Java, Javascript, HTML, CSS, SQL
- Frameworks/ Tools: VSCode, React, Flask, IntelliJ, Git, Jenkins, JIRA, Agile Development/Scrum
- Languages: English, Mandarin

WORK EXPERIENCE

Western Digital   **Jun. 2024 – Present**
Embedded Software Development Engineering Intern   *Irvine, CA*
- Developed and optimized firmware for hard disk drives using C++ and Python, ensuring high performance and efficiency.
- Utilized software development practices including continuous integration (CI) and Agile methodologies to deliver high-quality eHDD firmware.
- Collaborated with internal teams to troubleshoot and resolve software issues, improving overall team functionality.
- Designed and implemented complex data path algorithms and hardware drivers, adhering to industry protocols and maximizing hardware-software integration.

Suntender Valuations   **Jun. 2023 – Sept. 2023**
Software Engineering Intern   *Pleasanton, CA*
- Actively engaged in the end-to-end software development process, including design, code reviews, testing, API documentation, and bug resolution.
- Led the design and execution of a series of machine learning experiments, evaluating model performance using Python and popular machine learning libraries.
- Integrated algorithms into production systems, collaborating with teams to optimize software performance and extend functionality based on analytical insights.

Prototype Vehicles Laboratory   **Sept. 2022 – Present**
Low Voltage Engineer   *San Luis Obispo, CA*
- Designed and implemented advanced motor control software for real-time speed and torque regulation using C, ensuring precise and reliable vehicle performance.
- Developed and integrated a real-time dashboard to monitor essential metrics like speed and battery status, improving system diagnostics and enhancing operational decision-making.

PERSONAL PROJECTS

Restaurant Recommender
- Developed a full-stack web application that provides restaurant recommendations based on user input, integrating the Yelp API to pull real-time restaurant data and provide relevant recommendations with similar price points and cuisine.
- Implemented form handling using Javascript and a Flask backend to handle user queries and displayed results in an interactive interface, improving overall user experience.

Amazon Price Tracker
- Developed a web application enabling users to track Amazon product prices and receive email notifications when prices fall below a user-defined threshold.
- Integrated web scraping techniques to extract real-time price data from Amazon for accurate alerts.
- Implemented a user-friendly interface allowing users to input product URLs, set price thresholds, and manage price alerts.