Ashton Liu

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EDUCATION

University of California, Santa Cruz — Santa Cruz, CA
Bachelor of Science — *Sep. 2022 – June 2026*
Double Major: Computer Science and Applied Mathematics
- Relevant Coursework: Machine Learning Basics: Data Analysis and Empirical Methods, Introduction to Data Structures and Algorithms, Programming Abstractions: Python, Computer Architecture, Computer Systems and C Programming, and Applied Discrete Math

EXPERIENCE

Summer Intern — June 2024 – Present
Clavata AI — *San Francisco, CA*
- Engineered AI-driven backend systems using machine learning algorithms to achieve a 95 percent accuracy rate in detecting fraudulent activities, resulting in a 50 percent reduction in reported scam incidents and associated financial losses
- Developed scalable APIs and microservices in Python/Django, optimizing API response times by 40 percent through asynchronous processing and load balancing techniques supporting real-time detection and removal of violent and illegal content, ensuring platform integrity and user safety.

ML Research Intern for Prediction Riptides — Jan 2024 – Present
University of California, Santa Cruz — *Santa Cruz, CA*
- Proficiently identifying and labeling critical visual elements in photos using AnyLabeling, such as riptide patterns and current color nuances to enhance machine learning models with essential visual cues for effective riptide detection
- Utilize advanced drone technology to capture high-resolution images of coastal areas, optimizing the dataset with aerial perspectives to augment the model's capability in recognizing subtle visual cues crucial for riptide prediction

Frontend Engineer — July 2023 – Present
Information Technology Services — *Santa Cruz, CA*
- Proficiently harness PHP and WordPress to design and engineer captivating user interfaces, translating intricate design concepts into responsive, performance-optimized websites
- Facilitated the advancement of over 1000 UCSC websites, enhancing user experiences and engagement through strategic utilization of Google Analytics, driving iterative improvements based on comprehensive data insights

PROJECTS

Project731 | *JavaScript, React, Node.js, CSS, Tailwind, Firebase, VS Code*
- Developed a robust group messaging application where students can be connected and chat with other students based on what class they are in, employing JavaScript, CSS, React, Node.js, and Tailwind CSS to facilitate seamless communication and class-based grouping functionalities
- Implemented cross-platform deployment with Expo and ensured seamless data management using Firebase Python SDK, orchestrating efficient frontend-backend integration for optimal user experience.

BananaFit (Hackathon Project at CruzHacks 2024) | *Python, React, Firebase, HTML, Javascript, CSS, VS Code*
- Orchestrated the development of a user-friendly website using HTML, JavaScript, and CSS, seamlessly integrating React and Firebase to store live feed data in the cloud resulting in a streamlined and efficient gym management system with enhanced capabilities
- Pioneered the development of a Python API featuring camera integration to enable real-time gym occupancy tracking, elevating user experience and feedback mechanisms

TECHNICAL SKILLS

Languages: Python, C/C++, Java, MySQL, JavaScript, PHP, HTML/CSS, Swift
Frameworks: React, Node.js, WordPress
Developer Tools: VS Code, Visual Studio, Google Analytics, Google Cloud Platform, AnyLabeling, Git, Docker, TravisCI, PyCharm, IntelliJ, Eclipse, Obsidian
Libraries: NumPy, Matplotlib, Pandas