Eric Phuong

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EDUCATION

University of California, Santa Cruz
Bachelor of Science in Computer Science, GPA: 3.8
Relevant Coursework: Distributed Systems, Software Engineering, Artificial Intelligence, Machine Learning: Deep Learning, Data Structures and Algorithms, Computer Systems Design, Computer Architecture, Database Systems, Analysis of Algorithms, Mobile Development, Web Development

TECHNICAL SKILLS

Languages: C/C++, Python, JavaScript/TypeScript, PostgreSQL, Go, Bash
Frameworks: React, Node.js, Next.js, Vue.js, py4web, ROS2
Developer Tools: Git, Docker, Jira, AWS
Libraries (Beginner): PyTorch, Scikit-learn

EXPERIENCE

Software Engineer Intern — Jan. 2025 – Current
Arsenal Biosciences — *Remote*
- Designed and implemented 20+ RESTful API endpoints in Go, enabling efficient experiment management and data retrieval for 100+ cancer researchers
- Created 15+ responsive React components to visualize experiment and plate data, improving frontend code reuse and enabling rapid UI development
- Reduced deployment time by 90% by implementing a CI/CD pipeline using GitHub Actions and AWS ECS Fargate to auto-deploy Docker containers on main branch pushes

Tutor & Grader — Oct 2023 – Current
University of California, Santa Cruz — *Santa Cruz, CA*
- Host office hours assisting 150+ students per quarter with programming assignments and exam preparation. This also includes grading midterm and final exams while providing feedback
- Course History: CSE101 (Data Structures and Algorithms, C/C++): Fall 2023, Winter 2024, Winter 2025; CSE13s (Computer Systems and C Programming): Spring 2024; CSE20 (Programming in Python): Spring 2025

Software Engineer Intern — June 2024 – Sept. 2024
FarmX — *San Rafael, CA*
- Developed ROS2 nodes in both Python and C++ for robotic perception and control. Optimized performance by porting select nodes from Python to C++, improving execution speed and efficiency
- Developed a Python curses-based GUI that reduced robot testing time by 30% by abstracting complex system data into an intuitive interface; integrated multithreaded cloud upload of mission logs and ROS2 bag files, enabling automatic post-run data sync
- Evaluated and integrated ZED X stereo cameras on a robotics platform for perceptive navigation, comparing its performance with prior cameras; setup documentation for ZED SDK and installation for future onboarding

Undergraduate Student Researcher — April 2023 – June 2023
University of California, Santa Cruz — *Santa Cruz, CA*
- Created and maintained 4+ Python and Bash scripts to automate the collection, formatting, and evaluation of 10,000+ GPT-3.5 and GPT-4 responses on the MATH dataset
- Co-authored a paper titled *"Assessing the Impact of Prompting Methods on ChatGPT's Mathematical Capabilities"* published on arXiv (Dec 2023)

PROJECTS

BudgetByte | *React, Next.js, Python, Firebase, Tesseract OCR, OpenAI API* — Sept. 2024 – Dec. 2024
- Lead a 5 person team to develop a web platform for health and budget conscious users, enabling grocery tracking and comparison against USDA MyPlate guidelines
- Engineered GPT-4o-mini API integration to categorize grocery items into food groups; tested parameters such as temperature, top-p, and system prompts to improve consistency and classification accuracy by 18%
- Applied preprocessing techniques to enhance text extraction accuracy by 24%