Hoi Tong Yeung

279-249-6453 | hoitonghy1213@gmail.com | linkedin.com/in/hoiy | github.com/Hoi-Tong | U.S. Citizen

Education

University of California, Santa Cruz — Expected June 2027

B.S. Computer Science, Minor in Electrical Engineering — *GPA: 4.0 / 4.0*

- Relevant Coursework: Data Structures & Algorithms, Python, Systems Programming (C, Assembly), Machine Learning, Linear Algebra, Embedded System, Network Programming
- Additional: Society of Women Engineers (SWE), ACM, 2024–2025 Dean's Honors List,

Experience

AI and Robotics Project Intern — Sep 2025 – Present

NASA — *Tempe, AZ*

- Collaborated in an 11-member team on a NASA-style AI robotics proposal, projecting 50% gains in mission efficiency and cost savings.
- Led the design of the mission concept, AI algorithms, and data analysis framework, applying machine learning and embedded systems expertise to strengthen the technical feasibility of autonomous space exploration systems.
- Coordinated milestones, secured mentors, and co-authored 7 NASA-style Quad Charts, finishing 3 days early and earning strong feedback from NASA reviewers.

Undergraduate Researcher — Sep 2025 – Present

University of California, Santa Cruz — *Santa Cruz, CA*

- Collaborated with a professor and researchers in an 8-member team to develop a Flask-based IoT platform with ESP32 nodes for real-time environmental monitoring.
- Optimized backend Flask APIs and PostgreSQL data pipelines to handle millions of environmental sensor readings and enable continuous system use and deployment, improving performance and data reliability.
- Designed and implemented React and MUI dashboards with Chart.js visualizations, enhancing data accessibility and enabling university researchers and environmental scientists to make data-driven sustainability decisions.

Software Engineering Fellow — Dec 2024 – Feb 2025

Palantir Technologies — *Remote*

- Developed an operational order management tool in Palantir Foundry that unified two disparate IT systems, enabling managers to view, assign, and track thousands of orders in a single interface
- Designed a custom data model and built an interactive Foundry Workshop app to display order status, risk, and assignment in real time, improving speed and visibility by over 50%.
- Leveraged AIP Logic, Ontology, and automation workflows to eliminate manual spreadsheet reconciliation, reducing processing time by half and delivering the solution under a short development timeline.

Projects

SkillSwap | Flask, SQL, Python, JavaScript, HTML, CSS, Regex, PythonAnywhere

- Collaborated in a 4-person team to build a full-stack web app in 12 hours using Flask, SQL, and JavaScript that matches users to exchange skills instantly.
- Implemented fuzzy matching and validation logic to boost match accuracy and ensure a smooth, reload-free UX across browsers.

Loan Default Prediction Model | Python, Scikit-learn, Pandas, SQL

- Processed 396K+ loan records and built reproducible data pipelines, boosting predictive accuracy by 22%.
- Applied modular code design, data validation, and workflow automation for large-scale datasets.

Pawtfit — HTML, CSS, JavaScript, Node.js, Express

- Developed a full-stack web app that dynamically generates randomized outfits with online images, improving user engagement by enabling thousands of unique combinations.
- Built and deployed a custom API with Express and integrated it into the frontend, reducing manual curation time by 90% and showcasing skills in API design, deployment, and version control.

Technical Skills

Programming Languages: Python, C, C++, Java, SQL, JavaScript, Assembly, MATLAB
Frameworks Libraries: React, Flask, Tailwind CSS, Node.js, Express, Linux, PyTorch
Tools & Platforms: Git, CI/CD, Docker, REST APIs, Unit Testing, Agile/Scrum, Embedded Systems, AWS/GCP, CAD