Ethan Cao

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EDUCATION & CERTIFICATIONS

University of California - Santa Cruz, *B.S. Computer Science* **Expected Graduation June 2026**

GPA: 3.93/4.0 GPA, Dean's Honors List

Relevant Courses: Data Structures and Algorithms, Analysis of Algorithms, Computer Architecture, Computer Systems and C Programming, Computer Systems and Assembly Language, Programming Abstractions: Python, Discrete Mathematics, Python Programming, C++ Programming

CompTIA Network+, Security+

PROFESIONAL EXPERIENCE

Farm-ng (Bonsai Robotics) **June 2025 – August 2025**
Software Engineer Intern *San Jose, California*

- Designed and deployed a secure user management system, integrated into over 150 production robots worldwide.
- Implemented multi-factor authentication using OAuth2, passwords, and hardware-bound cryptographic keys.
- Developed encrypted gRPC/Protobuf protocols to secure robot–Fleet Manager communications.
- Built a full-stack interface (React/TypeScript + FastAPI) enabling authenticated field operations on robotic devices.
- Enforced CSRF protection, secure session handling, and real-time threat detection for in-field usage.
- Established containerized development environments with Docker and hardened CI/CD pipelines.
- Integrated access logging, automated security scans, and alerting into deployment workflows.
- Provided field support for robot deployment and troubleshooting, gaining hands-on experience with physical security layers.

IT Consultant Services (Ichor Systems) **February 2023 – Present**
System and Security Specialist *San Jose, California*

- Configured Linux firewalls, TCP Wrappers, and remote access controls to monitor and block suspicious network activity.
- Managed server infrastructure for stability, uptime, and performance across multiple environments.
- Performed system hardening by removing unnecessary packages and disabling unused services.
- Enforced access controls and audited system logs to maintain compliance and protect sensitive resources.
- Applied OS-level patches and updates regularly to mitigate known vulnerabilities.
- Supported data center operations with real-time monitoring and incident response.

UCSC Information Technology Services **February 2024 – Present**
Learning Technologies Consultant *Santa Cruz, California*

- Provided front-line IT support to an average of 4–5 lab and library users daily, resolving software issues and printer troubleshooting in real-time.
- Managed inventory tracking using Google Sheets to maintain print supplies and minimize equipment downtime.
- Diagnosed and escalated hardware and software issues through internal ticketing systems to ensure timely resolution.

TECHNICAL SKILLS

Security & Networking	gRPC / Protobuf	Azure Cloud Computing
Log Analysis	C / C++	Cryptographic Keys
FastAPI	OAuth2 Authentication	CI/CD
Access Control	SQL	Linux
Endpoint Detection & Response	SIEM	Python
Vulnerability Scanning	Docker	Windows, Office 365