

Vincent Liu

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Experience

- UXLy

Software Engineer Intern

Jan - May, 2025

San Francisco Bay Area, Remote

 - Implement chatbot guardrails to prevent unsafe, off-topic, or inappropriate responses, ensuring compliance with guidelines while enhancing user satisfaction and engagement.
 - Collaborate with a team of three engineers and six interns in a fast-paced Agile environment
- UC Santa Cruz, Baskin School of Engineering

Reader

Jan - Mar, 2025

Santa Cruz, CA

 - Evaluate and provide feedback on assignments for 300+ students to determine students understanding of Agile workflow and core software engineering principles.

Projects

- Cognoso: AI Driven Flashcard Generator

 - Flashcard management website with PDF extraction, auto-generation, and chatbot that answers questions from uploaded study material.
 - Lead UI/UX development, end-to-end API integration, and database implementation.
- UXLy Multi-tool Customer Support Chatbot:

 - Multi-Tool AI Chatbot that maintains dialogue context, provides product recommendations, and manages orders.
 - Development and integration of eCommerce platform with AI chatbot features, API integrations, user authentication, and chatbot guardrails.
- SecureAI: GitHub Repository Vulnerability Scanner

 - Full-stack tool that scans GitHub repositories for security vulnerabilities and malicious files using Gemini and GPT models, enabling users to visualize vulnerabilities by severity with AI-generated explanations and recommended fixes.
 - Implement API calls, build backend components including an efficient GitHub file-fetching algorithm that filters files and prevents memory bloat, and perform LLM prompting for AI-generated vulnerability analysis.
- NoteSheet Editor: Exam NoteSheet Generator

 - Full stack tool that generates notesheets for students, using a backend algorithm inspired by the 2D knapsack problem to optimize whitespace and layout efficiency for PDF generation.
 - Lead frontend development, building UI with key components such as a rich text editor supporting bullet points, numbered lists, font styling; develop backend components including an efficient GitHub file-fetching algorithm that filters files and prevents memory bloat while sending data to LLM models.
- Handwritten-Digit-Recognition:

 - Design and implement a basic machine learning model to classify handwritten digits from the MNIST dataset.

Relevant Coursework:

Programming Languages & Tools	Software & Web Development	Theory / Foundations
C / C++ Programming Assembly Language and Lab Abstract Python Introduction to Computer Graphics	Full Stack Web Development I Software Design Project I + II + III Software Design Project IV (Accel.) Computer Systems Design	Data Structures and Algorithms Introduction to Algorithm Analysis Cryptography Computer Architecture Computational Models

Education

- University of California, Santa Cruz

Bachelor of Science - B.S. Computer Science

2021 - 2025

Skills

- Programming Languages:** Python, C, C++, JavaScript, TypeScript, Assembly, SQL
 - Frameworks:** React, Node.js, Express.js, Flask, FastAPI, PyTorch, ReportLab
- Web Technologies:** HTML5, RESTful API, WebGL
 - Tools:** Git/GitHub, Docker, Postman, Vercel
 - Software Principles:** Agile & Scrum
 - Database:** PostgreSQL

Honors, Awards, and Certificates

- Python Essentials I** — Issued by Cisco, Sep, 2025
- Python Essentials II** — Issued by Cisco, Sep, 2025
- Practical Introduction to Quantum-Safe Cryptography** — Issued by IBM, Feb 2025
- Information Systems Design and Management** — Issued by Information Technology Academy, Jun 2021
- State Seal of Biliteracy (Japanese)** — Issued by State of California, Jun 2021