

Ethan Chiang

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EDUCATION

University of Southern California

May 2026

Master of Science in Computer Science

UC Berkeley

Aug 2024

Bachelor of Arts in Cognitive Science, Minor in Computer Science

Major GPA: 3.8, Cumulative GPA: 3.68

Distinctions: Dean's List-College of Letters & Science, Honors to Date - Dec 2020, May 2021

WORK EXPERIENCE

Cohu Inc. | *Software Engineering Intern*

May 2023 - May 2024

- Implemented backend and GUI component in **C++** for the BiST function(built-in-self-test) of the MATRiX software, allowing clients to perform diagnostics on factory equipment, deployed in 1000+ machines installed worldwide
- Developed a full-stack feature into MATRiX's software systems in **C++** that allows customers to be able to configure sample times and extract performance data from the hardware, which improved factory yield and reduced downtimes
- Designed and maintained an analytic dashboard for an online equipment monitoring tool using **SQL** and **Grafana**, enabling operators to monitor key performance metrics in 25+ customer factories
- Built a proprietary application in **Python** that leveraged company data to construct ML models(**Scikit-learn**), providing a foundation for an in house ML product and offering insights into Cohu's equipment data
- Curated and prepared 30+ datasets using **SQL** and database technologies **Chronograf** and **InfluxDB** that optimized the evaluation of alternative AI/ML products, accelerating the research and market analysis timeline by 50%
- Collaborated with project managers and other business/engineering units to identify business objectives, set tasks, and discuss weekly progress, ensuring the relevance and marketability of the machine learning product capabilities

Ismecca Europe Semiconductor SA | *Machine Learning Intern*

May 2022 - July 2022

- Developed a data pipeline in **Python** with **PostgreSQL** and **pgAdmin** to perform ETL processes of equipment data for the purpose of research and development of a new ML product
- Constructed and executed queries in **SQL** on **pgAdmin** to extract and process data from Ismecca's products, enhancing data analysis and providing 100% of the insights on the temperature behavior of the NY20 factory machine
- Engaged with engineers in the research and development team to construct a report analyzing the temperature trends and behaviors of Ismecca's products that drove the ML research team's direction and subsequent objectives

University of California, Berkeley | *Teaching Assistant and Reader*

Jan 2022 - May 2023

- Hosted office hours and assisted in class activities including discussion sections, ensuring student success
- Participated in weekly staff meetings, communicated feedback on current course material and quiz/exam questions

SKILLS

Programming: Python, C++, Java, JavaScript, HTML, React, CSS, Assembly, SQL, Git, data structures/algorithms

Data Analysis: Scikit-learn, PyTorch, machine learning, Microsoft suite, Pandas, database systems, database technologies

PROJECTS

High-fidelity Web Application Prototype

- Designed and implemented a user-matching interface for a web-based mobile social application in collaboration with a student team, leveraging **JavaScript**, **HTML**, and **CSS** to create a responsive and intuitive user interface
- Incorporated large language models such as ChatGPT together with the open-source web platform **rea.gent** into the application's backend, significantly improving various functionalities including user matching capabilities

World Exploration Game

- Constructed the world-generation engine for a 2D tile-based world exploration game in **Java**, featuring a world creation algorithm that is able to pseudo-randomly generate functional maps for a dynamic player experience