# **GEN TAMADA**



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# **EDUCATION**

### University of California, Santa Barbara (UCSB)

Master of Science (M.S.) Computer Science Candidate (BS/MS Program)

Bachelor of Science (B.S.) Computer Science Candidate (Dean's Honors)

**Cumulative GPA: 3.98 Expected June 2026 Expected June 2026** 

Relevant Courses: Data Structure & Algorithms, Operating Systems, Computer Networking, Computer Security, Distributed Systems

# INTERNSHIP EXPERIENCE

Aquimo LLC., Remote (tinyurl.com/aquimo-light)

June 2023 - September 2023

Software Engineer Intern

- Worked in development team in creating light-weight mobile games and apps hosted online using Cocos Game Creator
- Standardized a method in Javascript for users to access any cocos games on their home screen without using app stores
- Optimized the Javascript URI parsing algorithms to allow developers with little coding experience to use query strings
- Prepared the **Production QA** to be tested on the Pre-season football game between Chicago Bears and Indianapolis Colts

SOAR Foundation, Remote (gen8009.wixsite.com/soar-foundation)

June 2022 - September 2022

Software Engineer Intern

- Created a new website for SOAR in 2 weeks using the platform of Wix; eliminated unnecessary components of the original site, emphasized the important information, and simplified the Web User Interface for the users
- Proposed the plan for replacing the original **Wordpress** site of SOAR Foundation to one powered by **React.js**
- Listed the pros and cons of the overall switch and the necessary procedures needed to achieve the new **React.js** site

### **PROJECTS**

Refract, UCSB Data Science Club (github.com/heyyysus/refract)

January 2024 - May 2024

Machine Learning Model Engineer

- Devised a ML solution to cloak facial images to mitigate risks associated with unauthorized use in DeepFake creation
- Implemented model in **PyTorch** and fine tuned the model after its five iterations to improve the result of the face cloaking
- Utilized pre-trained models like Inception Resnet V1, MTCNN, and LPIPS to manipulate image embeddings and introduce undetectable alterations that prevent misuse in machine learning applications
- Engineered custom loss function to maintain a balance between image similarity and cloak strength

KOS, UCSB Operating Systems Course (tinyurl.com/cs170kos)

January 2024 - March 2024

- Developed a fully functional operating system in C, designed to run on a MIPS R3000 32-bit processor simulator
- Implemented core functionalities of Linux including process management commands such as fork, exec, pipe, and dup
- Engineered a process scheduler to manage process control blocks (PCBs), effectively handling program registers, file descriptors, and child processes to support parallelism and resource management

Noteblockit, UCSB Data Science Club (github.com/Ononymous/Noteblockit)

January 2022 - April 2023

Project Team Leader

- Invented a solution that allows an accurate conversion of any music file (wav file) into noteblock systems in Minecraft
- Researched and compared more than 10 different implementations of Music Source Separation using machine learning, and used Python libraries such as **Librosa** and **Numpy** in **Google Colab** for data manipulation and storage
- Implemented a recurrent neural network model in **PyTorch**, and trained 3 separate sets of parameters for bass, vocals, and drums
- Hosted the model on **Streamlit** Community Cloud; fine-tuned the model to fit the memory usage limit on **Streamlit**

### **SKILLS**

- Technologies: Javascript, HTML/CSS, Java, Spring Boot, C, C++, SQL, PostgresQL, MIPS, Linux
- **Python libraries**: Django, Pytest, Numpy, Scipy, PyTorch, TensorFlow, Librosa, Streamlit
- Javascript Related: Jest testing, Node.js, React.js, Next.js, React Native, Vue.js
- Languages: Fluent in English, Chinese, and Japanese