

# Howard Wei

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## EDUCATION

### San Jose State University

San Jose, CA

GPA: **3.83**, B.S. Computer Science

May 2026

**Relevant Coursework:** Data Structures & Algorithms, Linear Algebra, Discrete Math, Object-Oriented Design

## TECHNICAL SKILLS

**Languages:** Typescript, Javascript, Python, Java, C++, SQL, HTML/CSS, WASM

**Frameworks:** TensorFlow, Django, Django REST, PostgreSQL, Nuxt, Vue, Next.js, React, Tailwind CSS

**Libraries:** OpenCV, Keras, SQLite, Matplotlib, Seaborn, NumPy, Pandas, Scikit, Pyodide, SWR

**Dev Tools:** AWS, Git, Jira, Google Colab, Jupyter, VSCode, Eclipse, Vercel, Firebase

## EXPERIENCE

### Google Developer Group

September 2024 - Present

#### Lead Machine Learning Engineer

- Built a paper trading platform for analyzing trading habits and providing retail investors with insights.
- Recruited and led a team of **25 students** from **5 universities** using **Agile** methodologies (Kanban).
- Ensured smooth collaboration across **3 cross-functional teams** (Quantitative Analysis, Machine Learning, and Full Stack) by employing **Github Pro**, **Jira**, and **weekly standups** for proper task management, version control, and progress tracking.
- Integrated real-time and **6 years** of historical market data into **SQLite** database using **Alpaca Markets** REST API.
- Utilized the applications of **OpenAI GPT-4o** and **Groq** APIs on **7** different metrics of financial advice.

### Machine Learning at SJSU

September 2024 - Present

#### Web Developer

- Developed **5 API endpoints** to save and fetch user posts and readings in a cloud **PostgreSQL** database.
- Designed and implemented frontend user interface with **React** and **Tailwind CSS**, fetching data from API endpoints using **SWR**.
- Collaborated with the development team using **Git** for version control and **GitHub** for project management, implementing best practices for code reviews and feature branching.

### Spartan Gaming

February 2024 - Present

#### Software Engineer / Event Coordinator

- Used **Nuxt**, **Vue**, and **Typescript** to build a dynamic, mobile-friendly club website from scratch.
- Hosted weekly online gaming events for **over 3,000 SJSU and non-SJSU club members**.
- Organized and facilitated tournaments for **~10 teams** with several cash and physical prizes.
- Co-hosted fundraisers to raise money for club and charity partners.

## PROJECTS

### EmotionAI

April 2024

- Led a team of **5 students** across **4 universities** nationwide in developing a human emotion detection model using **~35,000** images of facial expressions.
- Utilized real-time **OpenCV** video capture to recognize and process multiple objects in images.
- Trained and fine-tuned a **5-layer** neural network using a custom **TensorFlow** Sequential model for best results.
- Achieved **60%+** testing accuracy for **7** total facial expressions (common and uncommon).

### ByTech

August 2023

- Online classroom for programming teachers to publish programming problems and create test cases.
- Utilized Google **Firebase** to organize and store accounts, classes, and assignments.
- Compiles **Python** into **WASM** with **Pyodide** to be run in browsers.
- Built frontend with **Next.js**, **React**, and **Tailwind CSS** for a responsive and seamless user experience.
- Leveraged **Agile** methodology (Scrums), ensuring iterative improvements and regular feedback integration.

## AWARDS & CERTIFICATIONS

### GIAC Foundational Cybersecurity Technologies (GFACT)

June 2024

### National Cyber Scholar

February 2024