

HUNTER NGUYEN

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EDUCATION

San Jose State University

Expected Graduation: May 2026

Bachelor of Science in Computer Science | GPA: 3.8

San Jose, CA

- **Organizations:** Software and Computer Engineering Society (Development Officer), Mozilla Student Ambassador
- **Coursework:** Data Structures/Algorithms, Object-Oriented Design, Intro to Computer Systems, Discrete Math

EXPERIENCE

San Jose State University

Sept. 2024 – Present

Undergraduate Researcher

San Jose, CA

- Develop custom constraint-embedding layer to validate constraints within engineering designs using PyTorch.
- Research component recognition and extraction, using research ideas like DesignQA to aid in validation accuracy.
- Author publication with Dr. Yunjian Qiu (Mech. Eng.) to be presented at **ASME IDETC-CIE 2025** Conference.

SJSU College of Engineering

Sept. 2024 – Present

Software Engineer

San Jose, CA

- Created school Discord bot with LangChain tool calling on educational services through natural language.
- Streamlined retrieval of educational service endpoints using Groq's LPU-based AI inference, boosting efficiency.
- Optimized API performance by implementing asynchronous processing, reducing response times by 20%.

theCoderSchool

Jun. 2024 – Present

Coding Instructor

Los Gatos, CA

- Mentored 10 students in Python and Java with project-based learning, tailoring lessons by different skill level.
- Taught data structures and algorithms, applying understanding through coding challenges and real-world projects.

Software and Computer Engineering Society

Jun. 2024 – Aug. 2024

Software Engineer Intern

San Jose, CA

- Created REST APIs in Node.js to perform CRUD operations on data stored in MongoDB with Express.js for club site.
- Restricted user actions in admin dashboard in Express.js, preventing 50+ officers from modifying higher-role users.
- Designed comprehensive unit tests using Mocha/Chai in Node.js to enhance code reliability and deployment cycles.

PROJECTS

Secure Send | TypeScript, Next.js, Supabase (PostgreSQL) Web Crypto API, Tailwind CSS

- Developed a secure file-sharing application with client-side encryption and user authentication with Google OAuth.
- Leveraged AES-GCM hashing algorithm to store file metadata securely in Supabase's PostgreSQL database.
- Integrated modular TypeScript utilities for file encryption, validation, and handling to increase reusability.

Imk (let me know) | TypeScript, Next.js, Supabase (PostgreSQL), OpenAI, Mapbox, Tailwind CSS

- Engineered real-time hazard reporting system, aggregating context through agentic workflow using OpenAI API.
- Incorporated several input sources to enhance the agents' ability to analyze and critique events based on urgency.
- Developed Mapbox integration to visualize hazard zones using GeoJSON, reducing map rendering time by 15%.

Cat and Dog Image Classification | Python, PyTorch, NumPy

- Built a convolutional neural network (CNN) to classify 100+ images of dogs and cats with 90% confidence.
- Used PyTorch to train model with the CIFAR-10 dataset, implementing forward propagation on neural network.

TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Python, Java, HTML/CSS

Frameworks: React, Node.js, Next.js, Express.js, FastAPI, PyTorch, LangChain, Tailwind CSS

Developer Tools: Git, GitHub, Docker, MongoDB, Postgres, Supabase

Certifications: Machine Learning Specialization, Artificial Intelligence