

# Nathan Tran

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## EDUCATION

### San Jose State University

San Jose, CA

*Bachelor of Science in Computer Science*

*Expected Graduation: May 2027*

**Organizations:** Software and Computer Engineering Society, Mozilla Responsible Computing Club

**Relevant Coursework:** Data Structures and Algorithms, Object Oriented Design, Computer Architecture

## EXPERIENCE

### Ego (YC W24)

Nov. 2024 – Present

*Software Engineering Intern*

*San Francisco, CA*

- Enhanced Roblox game by implementing LLMs, improving conversation coherence and engagement by 20%
- Developed Discord mini-game with Claude API integration, reaching 1.5K active users within first month of launch
- Engineered automated QA testing framework using LLM agents for efficient bug detection and gameplay testing
- Optimized FastAPI backend through caching and query handling, reducing average response times by 15%

### Uber Career Prep

Nov. 2024 – Present

*Software Engineering Fellow*

*Remote*

- Selected for elite fellowship program (2.9% acceptance rate) focused on engineering principles and system design
- Mastering data structures and algorithms through weekly technical challenges and mock interview sessions
- Collaborating with Uber engineers in bi-weekly mentorship sessions for code reviews and technical guidance
- Building full-stack projects while learning industry best practices through structured GitHub feedback

### SJSU Software & Computer Engineering Society

Sept. 2024 – Present

*Artificial Intelligence & Machine Learning Team Lead*

*San Jose, CA*

- Engineered reinforcement learning model that outperformed human benchmarks in autonomous racing simulation
- Implemented deep neural networks using PyTorch to optimize racing trajectories and vehicle control systems
- Developed custom training environment and reward functions, achieving 30% faster lap times than other students
- Built interactive ML demos in Jupyter Notebooks to showcase AI agent performance to 20+ students

## PROJECTS

### CanvAI | *Next.js, Typescript, Python, Supabase, FastAPI*

January 2025 – Present

- Developed a Chrome extension that helps students manage Canvas assignments and deadlines with AI assistance
- Built user authentication system with Google OAuth and secure Canvas token storage via Supabase
- Integrated Canvas API to search files, submit assignments, and sync deadlines with Notion/Google Calendar.
- Streamlined student workflows by unifying secure auth, AI insights, and robust API integrations.

### DreamScapes | *Meta Quest 3, Unity, C#, Python, PyTorch, FastAPI*

November 2024

- A real-time VR application that uses voice descriptions to render an immersive 3d environment
- Architected FastAPI backend reducing voice-to-3D scene generation time from 2 minutes to 30 seconds
- Built dynamic VR asset loading system supporting real-time scene updates for seamless user experience
- Won **Best Use of AI in XR** and **Best Use of AWS** prizes out of 60 teams at Stanford XR hackathon

### SJSU Parking Predictor | *Python, Git, Scikit-Learn, Pandas, Matplotlib*

August 2024 – January 2025

- Developed ML model achieving 95% accuracy in predicting parking availability across 10,000+ daily events
- Built automated data pipeline processing real-time updates from 5 campus parking structures
- Scaled Discord bot to 500+ daily active users with 99.9% uptime for instant parking notifications
- Reduced prediction error by 35% using LSTM networks and historical parking patterns analysis

## TECHNICAL SKILLS

**Languages:** Python, Java, C#, Javascript, Typescript, HTML/CSS

**Frameworks:** OpenAI API, MongoDB, Flask, Pandas, Matplotlib, Scikit-Learn, PyTorch, Selenium, React, Next.js

**Developer Tools:** Git, Docker, VS Code, Visual Studio, Unity

**Libraries:** NumPy, Scikit-Learn, BeautifulSoup4, FastAPI, LangChain, Groq