Nathan Tran

nathan.tran04@sjsu.edu | linkedin.com/in/nthntrn | github.com/n8thantran

EDUCATION

San Jose State University   San Jose, CA
Bachelor of Science in Computer Science   *Expected Graduation: May 2026*
> **Organizations**: Software and Computer Engineering Society, Responsible Computing Club
> **Relevant Coursework**: Data Structures and Algorithms, Python, Discrete Math, Calculus I & II, Statistics

EXPERIENCE

Software Engineering Intern   Nov. 2024 – Present
Ego (YCombinator Winter '24 Batch)   *San Francisco, CA*
- Enhanced Roblox game by refining LLMs to improve speech patterns and user interaction by 20%
- Created a Discord activity with LLMs, optimizing speed for a game that gained 10,000 users in one month
- Researched QA game agent using Claude for testing and efficient bug identification without human intervention
- Improved backend efficiency using FastAPI by optimizing query handling, reducing request times by 15%

Software Engineering Intern   Sept. 2024 – Present
SJSU Software & Computer Engineering Society   *San Jose, CA*
- Developed Discord bot with LLM integration utilizing FastAPI and Groq's API for advanced NLP capabilities
- Implemented tool calling using LangChain framework for external API interactions and complex task execution
- Integrated security evaluator, rate limiting, parameter validation, and authorization checks for API stability
- Collaborated on API specifications for seamless integration between Discord bot and LLM backend

Artificial Intelligence & Machine Learning Officer   Sept. 2024 – Present
SJSU Software & Computer Engineering Society   *San Jose, CA*
- Utilized pandas and NumPy libraries to manipulate and analyze large datasets for machine learning applications
- Developed K-Nearest Neighbors and clustering algorithms for supervised and unsupervised learning
- Employed Git for version control, facilitating seamless teamwork in software development processes
- Leveraged Google Colab and Jupyter Notebooks to collaborate on data analysis and model development projects

PROJECTS

DreamScapes | *Meta Quest 3, Unity, C#, Python, PyTorch, FastAPI*   November 2024
- Engineered image-to-3D pipeline using FLUX.1 and TripoSR for gaussian splatting reconstruction
- Built a high-performance FastAPI backend achieving 30-second latency for complete voice-to-3D scene generation
- Implemented seamless runtime 3D asset integration in VR environments without requiring application restarts
- Won **Best Use of AI in XR** and **Best Use of AWS** prizes out of 60 teams at Stanford XR hackathon

NutriLens | *Snap AR Spectacles, JavaScript, TypeScript, Python, FastAPI, Figma*   October 2024
- Developed a voice-activated AR app using Snap Spectacles for real-time food recognition and nutritional analysis
- Built a Python FastAPI backend that processes frame captures and provides nutritional data within 2 seconds
- Implemented a voice-command functionality that gave meal suggestions based on user-provided ingredients
- Optimized data flow between devices through direct collaboration with Snapchat engineering team

SJSU Parking Predictor | *Python, Git, Scikit-Learn, Pandas, MatPlotLib*   August 2024 – Present
- Achieved 95% parking prediction accuracy by developing an AI system using web scraping and machine learning
- Enabled real-time parking occupancy analysis and forecasting by implementing a data pipeline
- Served 500+ users with instant updates and predictions by creating a Discord bot for parking availability
- Optimized parking predictions by applying statistical analysis and time series forecasting techniques

TECHNICAL SKILLS

Languages: Python, Java, C#, Javascript, Typescript, HTML/CSS
Frameworks: OpenAI API, MongoDB, Flask, Pandas, MatPlotLib, Scikit-Learn, PyTorch, Selenium
Developer Tools: Git, Docker, VS Code, Visual Studio, Unity
Libraries: NumPy, Scikit-Learn, BeautifulSoup4, FastAPI, LangChain, Groq