

Jonathan Nguyen

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EDUCATION

San Jose State University

Graduation Date: May 2026

B.S. Software Engineering, GPA: 3.7

San Jose, CA

- **Organizations:** Software and Computer Engineering Society (Vice President), Men's Club Swim
- **Relevant Coursework:** Data Structures and Algorithms, Object Oriented Design Patterns, Software Engineering, Database Management Systems, Computer Networks, Information Security, Computer Organization and Architecture

EXPERIENCE

Software Engineering Intern

August 2024 – Present

Fetch.ai

Remote

- Involved in the development of the uAgents library to support the development and integration of AI agents
- Developing an NPM package for the uAgents framework, enabling cross-platform compatibility for TypeScript users
- Collaborated with core engineers to establish test suites, validating package functionality and ensuring full parity.

Development Team Officer

May 2024 – Present

The Software and Computer Engineering Society

San Jose, CA

- Built RESTful APIs and server-sent events to support a messaging platform in Node.js, Express, Docker and Nginx
- Linked messaging platform to LED sign with real-time data streams, improving communication for 300+ members
- Wrote comprehensive unit/E2E tests using Mocha/Chai to improve code reliability and streamline deployment cycles
- Leveraged Prometheus for API logging and utilized Grafana to monitor over 1000+ monthly API calls in real-time

Software Engineering Intern

January 2024 – May 2024

San Jose State University - College of Engineering

San Jose, CA

- Developed a course search and review platform for 500+ SJSU students using Next.js, PostgreSQL, and Docker
- Integrated web scraping functionality, querying GraphQL API to extract the reviews of 300+ professors and courses
- Automated build, test, and deployment workflows with GitHub Actions CI/CD to improve development time by 20%

PROJECTS

Roomy | LA Hacks 2024 | *Next.js, Python, FastAPI, FetchAI, Google Gemini, Docker*

- Built an AI-powered smart home assistant, implementing Tool-Former and Auto-GPT research paper concepts
- Parallelized processes through FetchAI's uAgents framework and utilized RPC to reduce API calls by ~50%
- Integrated a code-verifying agent with Google Gemini to automate quality assurance of generated functions
- Winner of Fetch.ai's "**Best Use of AI Agents**", placing **1st out of 250+ teams** at UCLA's premiere hackathon

Noq | CalHacks 11.0 | *Groq, ChromaDB, Next.js, Tailwind, Whisper*

- Developed an AI-driven tool that listens to lectures, automatically categorizing key points and revising in real time
- Used Groq's high-speed infrastructure to manage a complex AI agent network for real-time inference calls
- Implemented a RAG search engine using ChromaDB for efficient semantic querying of stored notes
- Won "**Best Use of Groq**", placing **1st out of 350+ teams** at Berkeley's CalHacks 11.0 hackathon

Shrink.lol | *React, Go, Docker, GCP, NGINX, Prometheus, Grafana*

- Built a URL shortener with React, Go, and PostgreSQL, supporting custom URL aliases and click analytics
- Integrated Prometheus and Grafana to monitor API metrics, improving visibility into 2400+ shortened link clicks
- Optimized web infrastructure with NGINX reverse-proxy, using DNS resolution and URL rewriting to route requests

GoChat | *Go*

- Developed a TCP-based chat server in Go to enable real-time communication across multiple clients.
- Implemented client-server interaction via Go channels, ensuring concurrent message delivery and real-time updates.
- Engineered an extensible command system for handling user actions, enhancing chat interactivity.

TECHNICAL SKILLS

Languages: TypeScript, Python, Golang, Java, C++, SQL, HTML/CSS

Frameworks/Libraries: Node.js, React, SvelteKit, Next.js, Express.js, Flask, FastAPI

Developer Tools: Git, Linux, Docker, AWS, GCP, NGINX, MongoDB, MySQL, PostgreSQL, Prometheus, Grafana