

Nicholas Le

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Education

B.S. Computer Science

San Jose State University

San Jose, CA

August 2022 – May 2025

- **President's Scholar (GPA: 3.98/4.0)**
- Coursework: Data Structures and Algorithms, Introduction to Database Management, Object Oriented Design, Computer Architecture (MIPS assembly), Linear Algebra, Discrete Math, Multivariable Calculus
- Organizations: SJSU Software Engineering Society (Dev Team Officer), Cube3 Satellite Club (Controls Team Member)

Experience

Development Team Officer

SJSU Software and Computer Engineering Society

San Jose, CA

March 2023 – Present

- Constructed a **RESTful API** with ExpressJS and NodeJS to perform CRUD operations on a **MongoDB** database
- Set up automated workflows with **GitHub Actions** to lint contributors' code to enforce syntax style
- Supervising clubroom activities and managing shop transactions to enforce club regulations during office hours

Intern

SJSU Software and Computer Engineering Society

San Jose, CA

June 2023 – August 2023

- Created an application to stream YouTube videos to a standalone **Raspberry Pi** and TV in an SJSU Classroom
- Improved video access speed by ~50% through the use of an **LRU cache** for previously requested videos
- Built a **FastAPI** server monitored with **Prometheus** to manage and download YouTube URLs to the video cache
- Deployed the application backend on an **Ubuntu** server using **Docker** for configuration and containerization
- Utilized and seen by over 300 active members providing a means of displaying promotional content or entertainment

IT Technician I

Corovan | Corotech

San Jose, CA

June 2023 – August 2023

- Configured and disassembled workstations, monitors, and peripherals for Google, Meta, and Adobe offices
- Managed inventory of electronics and personal items with careful attention to detail to ensure zero losses
- Conducted thorough quality checks to validate functionality and assisted customers with troubleshooting post-move

Projects

Classify | [GitHub Link](#)

San Jose, CA

ReactJS, FastAPI, Nginx, Docker, Zilliz

- Engineered a full stack web application for SJSU students to search for courses with natural language more effectively
- Structured a robust backend with **Nginx** as a reverse proxy and load balancer for **Docker** containers running **FastAPI**
- Integrated **Zilliz** and a pretrained embedding model to store course description embeddings for semantic search
- Orchestrated DNS setup and port forwarding to allow for external access to the server hosted on a **Raspberry Pi**

UniPlan Calendar | [GitHub Link](#)

San Jose, CA

ReactJS, ExpressJS, NodeJS, MongoDB

- Architected and developed a full stack calendar application on the **MERN** tech stack deployed on **Vercel**
- Implemented **JSON web token authentication** to provide user authentication and security of protected user data
- Designed **Mongoose** schemas and collections to accurately represent and store users and events within **MongoDB**

Chess Engine | [GitHub Link](#)

Morgan Hill, CA

Python

- Designed a chess engine capable of analyzing 50,000 positions per second to provide move suggestions via minimax
- Increased engine search efficiency by 100% with move ordering and alpha-beta pruning to avoid repetitive searches
- Accelerated search speeds further by 50% using bitmaps and transposition tables to look up previous evaluations

Skills & Interests

- Languages/Technologies: Python, Java, JavaScript, HTML, CSS, SQL, Docker, Git, Linux/Unix, ExpressJS, NodeJS, ReactJS, MongoDB, FastAPI