

Nicholas Le

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Education

B.S. Computer Science

Graduation: May 2026

San Jose State University | College of Science

• GPA: 4.0/4.0

- Organizations: SJSU Software Engineering Society (Dev Team Officer), Cube3 Satellite Club (Controls Team Member)
- Coursework: Data Structures and Algorithms, Linear Algebra, Discrete Math, Intro to Comp Systems (MIPS assembly)

Experience

Development Team Officer

San Jose, CA

SJSU Software and Computer Engineering Society

March 2023 - Present

- Developing ClassCove, a web application aggregating SJSU professor info with MongoDB, Express.js, and React.
- Setting 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.

Software Engineer Intern

San Jose, CA

San Jose State University

June 2023 – August 2023

- Created an application to stream YouTube videos and playlists to a standalone TV in an SJSU Classroom.
- Optimized video downloads by implementing an LRU cache for efficient access of previously requested videos.
- Built a FastAPI server monitored with Prometheus to manage and download YouTube URLs to the video cache.
- Streamed the YouTube videos with RTMP to a Raspberry Pi receiving the stream with VLC Media Player.
- Configured and containerized the application backend using Docker to be deployed on an Ubuntu server.

IT Technician I

San Jose, CA

Corovan | Corotech

June 2023- August 2023

- Configured and disassembled workstations, monitors, and peripherals for Google, Meta, and Adobe offices.
- Managed inventory of hardware and personal items, facilitating accurate asset tracking for minimal losses.
- Conducted thorough quality checks to validate functionality and promptly identify and troubleshoot any issues.

Selected Independent Projects (More projects available at <https://github.com/nicholasle04>)

UniPlan Calendar

San Jose, CA

React.js, Express.js, Node.js, MongoDB, Vercel

August 2023 – Present

- Developed and architected a full stack web application from end-to-end on the MERN tech stack deployed on Vercel.
- Integrated JSON web token authentication to enhance website security and provide user authentication.
- Engineered a robust, RESTful API to ensure efficient communication between the frontend and backend.

Chess Engine

Morgan Hill, CA

Python, React.js, Express.js, Node.js

July 2023 – Present

- Designed a chess engine capable of analyzing 50,000 positions per second to provide move suggestions via minimax.
- Increased engine search efficiency by 75% with pruning, move ordering, hashing, bit manipulation, and memoization.
- Developing a frontend using React and an ExpressJS server to create a web app and allow users to play the engine.

Valorant League Discord Bot

San Jose, CA

MySQL, AWS EC2, Discord.py, BeautifulSoup

September 2022 – November 2022

- Led 3 Computer Science students to develop a discord bot to relay relevant Valorant team information and statistics.
- Gathered professional Valorant teams' performance metrics by scraping various esports webpages with BeautifulSoup.
- Cached relevant team info and stats gathered by the web scraper in a MySQL database to reduce query times by 90%.

Skills & Interests

- Languages/technologies: Proficient in Python, Java; familiar with JavaScript, HTML, CSS, SQL; Experienced with Docker, Git, Linux, Bash, FastAPI, Express.js, Node.js, React.js., MongoDB

Honors & Awards

- **SJSU President's Scholar** – Awarded from the SJSU College of Science for exemplary GPA. May 2023
- **2x AP Scholar with Distinction** – Awarded by the College Board for exemplary scores on AP exams. July 2021-22