Nicholas Le

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Education

B.S. Computer Science **San Jose, CA**
San Jose State University | College of Science *August 2022 - May 2025*
- **President's Scholar (GPA: 4.0/4.0)**
- Coursework: Data Structures and Algorithms, Introduction to Database Management, Object Oriented Design, Computer Architecture (MIPS assembly), Linear Algebra, Discrete Math
- Organizations: SJSU Software Engineering Society (Dev Team Officer), Cube3 Satellite Club (Controls Team Member)

Experience

Development Team Officer **San Jose, CA**
SJSU Software and Computer Engineering Society *March 2023 - Present*
- Developing a MERN web application to aggregate and present SJSU professor reviews to the student body.
- Constructed RESTful API endpoints to quickly perform CRUD operations on over 10,000 review database entries.
- 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**
SJSU Software and Computer Engineering Society *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 **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 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 (https://github.com/nicholasle04)

UniPlan Calendar **San Jose, CA**
React.js, Express.js, Node.js, MongoDB, Vercel *August 2023 – Present*
- Architected and developed a full stack calendar application on the MERN tech stack deployed on Vercel.
- Integrated 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 the database.

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 100% with move ordering and alpha-beta pruning to avoid unnecessary searches.
- Accelerated search speeds further by 50% using bitmaps and transposition tables to look up previous evaluations.
- Developing a web application using React, Express.js, and Node.js to allow users to interact and play with 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.
- Implemented web scraping solutions with BeautifulSoup to collect specific player data from multiple web pages.
- Reduced query times by 90% by caching relevant player statistics gathered from the web scraper in a MySQL database.

Skills & Interests

- Languages/technologies: Python, Java, JavaScript, HTML, CSS, SQL, Docker, Git, Linux, Bash, FastAPI, Express.js, Node.js, React.js, MongoDB
- Interests and hobbies: Competitive gaming, Basketball, Volleyball, Chess, PC building