Nicholas Le

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Education

B.S. Computer Science   **San Jose, CA**
San Jose State University   *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   **San Jose, CA**
SJSU Software and Computer Engineering Society   *March 2023 - Present*
● Constructed a **RESTful API** with Express.js and Node.js 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   **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)

skilltree | GitHub Link   **San Francisco, CA**
ReactJS, FastAPI, CockroachDB, Together AI   *October 2023*
● Led a team of 3 students at CalHacks 10.0 to develop a web application enabling users to create and share skill trees.
● Implemented a **RESTful API**, utilizing **SQL** queries for CRUD operations on a **CockroachDB** serverless cluster
● Automated tree generation by engineering a prompt, utilizing Meta's Llama-2 model, and processing responses

UniPlan Calendar | GitHub Link   **San Jose, CA**
ReactJS, ExpressJS, NodeJS, MongoDB, Vercel   *August 2023 – October 2023*
● 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 | GitHub Link   **Morgan Hill, CA**
Python, ReactJS, FastAPI   *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 repetitive searches
● **Accelerated search speeds further by 50%** using bitmaps and transposition tables to look up previous evaluations
● Developing a web application using **React** and **FastAPI** to allow users to interact and play with the engine

Skills & Interests

● Languages/Technologies: Python, Java, JavaScript, HTML, CSS, SQL, Docker, Git, Linux/Unix, ExpressJS, NodeJS, ReactJS, MongoDB, FastAPI
● Interests and Hobbies: Full Stack Development, Esports, Basketball, Volleyball, PC building