

Bryan Lin

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Education

San Jose State University – BS Computer Engineering

Expected May 2026

Honors: Dean's Scholar

GPA: 3.80

Course Work: Object-Oriented Concepts & Methodology [C++], Data Structures & Algorithms [C++, Python], Software Engineering [Python, SQL, JS], Operating System Design [C], Computer Networks, Electronics for Computing Systems

Skills

Languages: C, C++, Python, SQL, HTML, CSS, TypeScript, MASM Assembly, Verilog, Bash

Frameworks: ReactJS, ExpressJS, Flask, Django, FastAPI, Ultralytics, PyTorch

Tools: Git, MySQL, Postgres, FireBase, Numpy, SQLite Studio, Pandas, Vivaldo, Docker, AWS, Oracle APEX, Linux

Experience

General Laboratory Assistant, San Jose State University – San Jose, CA

Aug 2023– Present

- Mentor a class of 25 engineering students, through hands-on projects and experiments to deepen their understanding of engineering principles
- Designed and implemented a hands-on curriculum for future engineers, incorporating the use of electrical measurement tools, SolidWorks for CAD, and C/C++ for programming.
- Utilized interactive teaching methods such as group discussions and peer-to-peer learning activities to enhance student engagement and collaboration within the classroom, leading to an average satisfaction rating of 4.5 out of 5 from students on course evaluations.

Projects

CampusNest (React, ExpressJS, MongoDB)

April 2025

- Awarded First Place at SpartUP Hackathon, an innovation-focused competition hosted by SJSU's Office of Innovation
- Led a team of three to develop a centralized platform that aggregates on/off-campus housing listings for SJSU students, addressing the fragmentation of the existing dorm and apartment application and postings
- Designed frontend using React & Tailwind CSS to allow for cross-platform experience on mobile and desktop
- Engineered a scalable backend using Express.js and MongoDB, optimizing API performance to handle high-volume student housing queries with minimal latency
- Developed secure authentication with JWT tokens and two-factor verification, with profile management and real-time messaging capabilities with users and AI chatbots for FAQ

SCE Club Shopping Site (React, Python, MySQL, AWS)

July 2024 - Nov 2024

- Developed a full-stack e-commerce website to help promote the 3D printing services and Arduino/FPGAs kits offered by the Software & Computer Engineering Society
- Integrated with email notifications and store metrics such as purchase date, money spent, and number of orders
- Automated report generation using scheduled background tasks, providing downloadable CSV reports with summaries of sales, material usage, and order trends.

Magic The Gathering Support Bot (Python, Postgres, AWS, Grafana)

Dec 2023 - Feb 2024

- Developed a Python-based Discord bot for managing user requests for Magic the Gathering Cards, such as card information, legalities, and rulings, utilizing Discord API, and Scryfall API
- Integrated a PostgreSQL database with a web app, enabling users to track match history and scores through an intuitive interface, seamlessly connected to the Discord bot
- Collaborated with community moderators to gather feedback, prioritize features, and refine UX/UI for both bot interactions and the web interface.

Autonomous Beacon Locator & Retrieval Robot (C/C++, Python, OpenCV)

Nov 2022

- Designed and implemented an algorithm in C/C++ for a robot to navigate an obstacle course and successfully retrieve two beacons, using sensor feedback for dynamic path adjustment
- Implemented computer vision techniques in Python using OpenCV to enhance beacon detection and obstacle recognition, improving navigation accuracy.
- Utilizing an Arduino Uno to interface with ultrasonic sensors, enabling obstacle detection and distance measurement

Activities

Software & Computer Engineering Society - Officer

Aug 2024 - Present

- Coordinate with the AI/ML team to develop projects & recruitment of new members
- Developing an NLP moderator to help keep chat forums safe from scans and malicious actors