Bryan Lin

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Education

San Jose State University – BS Computer Engineering Expected May 2026

Honors: Deans Scholar GPA: 3.80

Course Work: Object-Oriented Concepts & Methodology, [C++], Data Structures & Algorithms [C++, Python], Software Engineering 1[TSX, Python, SQL, React], Operating System Design [C], Computer Networks

Skills

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

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

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

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

Club Shopping Site Demo (React, Python, MySQL, AWS) July 2024 - Nov 2024

- Developed a shopping website to help promote the 3D printing services and Arduino/FPGAs offered by the Software & Computer Engineering Society
- Integrated with email notifications and store metrics such as print day, money spent, and amount of orders
- Enabled real-time order tracking and automated report generation to streamline purchase insights for club members and administrators.

Discord 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
- Efficiently responded to commands within a second, and scaled to mid to small-sized servers of 20-500 users
- 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

Restaurant Ordering System Backend (C++, MySQL) May 2023

- Led a team of three in developing a modular ordering system backend, enabling essential functions such as item addition and order processing
- Developed in C/C++ to construct a resilient and scalable system capable of accommodating numerous user modifications without lag & delay
- Utilized MySQL for database management, ensuring data consistency and optimized query performance, and reduced order processing times by 20%.

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 real-time obstacle detection and distance measurement.

Activities

Clubs: Software & Computer Engineering Society