

Jay Buensuceso

jbuens001@gmail.com | US Citizen | Willing to relocate | Eligible for Security Clearance

EDUCATION

University of California, San Diego

San Diego, CA

B.S. Cognitive Science Machine Learning, Minor in Computer Science

Graduated Mar 2024

WORK EXPERIENCE

Research & Development Engineer I (Contract) - UC San Diego

Apr 2024 - Nov 2024

- Increased Makerspace engagement by 25% by developing a React + Node.js digital signage ecosystem powering daily events and announcements
- Improved deployment reliability and scalability by implementing CI/CD pipelines with GitHub Actions, streamlining updates across multiple internal applications
- Cut backend latency 40% by profiling REST APIs and optimizing PostgreSQL queries, improving responsiveness of the central admin dashboard for the signage system

Makerspace Intern - UC San Diego

Mar 2023 - Mar 2024

- Minimized 3D printer downtime from 7 days to 48 hours by streamlining maintenance workflows and training student technicians on standardized upkeep procedures
- Engineered a robust user management platform with Google Sheets and UCSD API integrations, enabling 5,000+ student check-ins and supporting 8,000+ monthly logins with seamless authentication and data synchronization

PROJECT EXPERIENCE

San Diego FIRST Tech Challenge League Selection

2021 - Present

- Streamlined league selection logistics for an 80-team robotics region by developing a real-time scheduling application (Next.js + Convex), adopted across 5 competition seasons

Printfarm - 3D printer farm all-in-one Management Platform

2024 - Present

- Built an open-source all-in-one 3D printing dashboard, enabling multiple printer archetypes to be controlled through a FastAPI backend and React frontend, enabling efficient and streamlined 3D printer management

VOLUNTEERING

FIRST Tech Challenge Regional Key Volunteer & Mentor

2019 - Present

- Mentored six award-winning robotics teams, guiding over 200 students in computer vision, localization, and autonomous system design
- Served as a key technical volunteer for five competition seasons, managing technical crews and ensuring reliable tournament operations
- Supported three world championship and invitational events, assisting in tournament operations and providing technical support for FIRST Tech Challenge teams

SKILLS

- Languages:** TypeScript, JavaScript, Python, SQL
- Frontend:** React, Next.js, Tailwind, TanStack, Redux, Tkinter, JWT
- Backend:** Node.js, Express, PostgreSQL, Convex, Supabase, Firebase, MongoDB, FastAPI, Flask, REST APIs
- DevOps:** CI/CD (GitHub Actions, GitLab), AWS, Docker, Linux, Postman
- ML/AI:** TensorFlow, PyTorch, Pandas, Scikitlearn, OpenCV