Jay Buensuceso

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EDUCATION

University of California, San Diego   **San Diego, CA**
B.S. Cognitive Science Machine Learning, Minor in Computer Science   **Graduated Mar 2024**

Coursework: Data Structures & Algorithms, Statistics, Machine Learning, Deep Learning, Natural Language Processing, Computer Vision

WORK EXPERIENCE

Qualcomm Institute   **San Diego, CA**
Research & Developer Engineer I   **Apr 2024 - Nov 2024**

- Increased community engagement at the UC San Diego Makerspace by building and launching a React + Node.js real-time digital signage system, now used daily for events and announcements
- Cut backend latency by 40% by profiling REST APIs and optimizing PostgreSQL queries, improving responsiveness and streamlining frontend-backend integration

Qualcomm Institute   **San Diego, CA**
Student Software Engineer   **Mar 2023 - Mar 2024**

- Reduced 3D printer maintenance downtime from 7 days to under 48 hours by prototyping a live-status dashboard using the PrusaLink API to track uptime and operational metrics
- Built and maintained a campus-wide Makerspace check-in and management system with Google Sheets and UCSD API integration, serving 5,000+ students and handling 8,000+ logins monthly

PROJECTS

Photogrammetry 3D Visualization Tool - UCSD Research   **San Diego, CA**
Full Stack Developer   **2021 - 2022**

- Enabled real-time, remote inspection of large 3D datasets by building an internal photogrammetry and point cloud visualization tool with React and Three.js

Realtime YouTube Watch Party Application   **San Diego, CA**
Full Stack Developer   **2023 - 2024**

- Built a Next.js + Supabase Realtime system for lobby-based YouTube watch parties with live group ratings and averages, improving the shared viewing experience

Climbr - AI Powered Climbing Analysis   **San Diego, CA**
Full Stack Developer   **2024 - Present**

- Addressed athletes' need for real-time technique feedback by integrating TensorFlow.js MoveNet, enabling live pose detection and playback for movement analysis during climbs
- Cut recurring API calls and load times by 80% by optimizing data retrieval with TanStack Query caching, improving responsiveness for frequent users
- Delivered a secure, role-based workout logging platform written in Next.js by implementing JWT authentication, Supabase RLS, and Zod validation to protect user data

SKILLS

- **Languages:** TypeScript, JavaScript, HTML, CSS, Python
- **Frontend:** React, Next.js, Svelte, React Redux, TanStack Query, SCSS, Tailwind, Vite, Figma, Framer
- **Backend:** Node.js, Express, PostgreSQL, Supabase (RLS, JWT Auth), Firebase, REST API design
- **DevOps:** Docker, Kubernetes, AWS, CI/CD (GitHub Actions, GitLab), Playwright, Bash, Yarn, Git
- **AI/ML:** TensorFlow, GPT-4, Claude 4, Cursor, Copilot, Pose Detection