

Jay Buensuceso

858-382-5478 | San Diego | jbuens001@gmail.com | U.S. Citizen | Eligible for DoD Security Clearance

EDUCATION

University of California, San Diego

Graduated Mar 2024

B.S. Cognitive Science, Machine Learning and Neural Computation, Computer Science Minor

- **Coursework:** Data Structures, Python, Java, C/C++, Shell Scripting, Deep Learning, Neural Networks, Supervised and Unsupervised ML

San Diego Miramar College

Graduated May 2021

A.S. Pre-Engineering Studies

WORK AND ORGANIZATION EXPERIENCE

Research and Development Engineer

April 2024 – Nov 2024

Qualcomm Institute

San Diego, CA

- Designed and Developed a scalable, web-based digital bulletin system using NextJS, Express.js, and PostgreSQL to serve real-time makerspace data.
- Built and deployed RESTful APIs using TypeScript, enabling scalable communication between front-end and backend services.
- Created UI based on internal design discussions, following patterns aligned with Figma-style mockups and user flow diagrams.
- Worked with Git in a collaborative environment using branching strategies, pull requests, and code reviews.

Makerspace Student Staff

Mar. 2023 – Mar. 2024

Qualcomm Institute

San Diego, CA

- Built and deployed a Python-based check-in and database system to track 400+ users, improving accuracy and equipment safety compliance by 75 percent.
- Provided technical oversight for 3D printers and laser cutters, decreasing downtime by 30 percent through preventive maintenance.
- Acted as technical mentor for youth STEM programs (e.g., COSMOS), delivering equipment training and project support.

TECHNICAL PROJECTS

AniTrack - Japanese Anime, Manga, and Video Game Tracker

Personal Project

Fullstack NextJS Project

June 2024

- Developed a full-stack web application using TypeScript, React, and Node.js.
- Implemented secure login and real-time data sync, optimized for both desktop and mobile users.
- Wrote unit tests to improve system reliability and maintainability.
- Designed and optimized database schema for scalability and performance.

Proxy Reader - Web-based Image Proxy Reader

Personal Project

Frontend NextJS Project

April 2025

- Built a cross-platform image proxy reader that takes imgur albums or specifically formatted github gists and presents them in a clean mobile-friendly reader.
- Implemented performance optimization for long-form content rendering, focusing on UX clarity.

Shoe Recommendation System in Python

Academic Project

Unsupervised Machine Learning

March 2024

- Created a recommendation engine using T-SNE, UMAP, and agglomerative clustering on Zappos50K dataset.
- Applied ML dimensionality reduction and visualization to derive product-group insights.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, Java

Frameworks: React, NextJS, Node.js, Express.js

Databases: PostgreSQL, Supabase, Firebase

Developer Tools: Bash, Git, CI / CD, Github Actions

ML Skills: PyTorch, TensorFlow, SVM, CNNs, RNNs, VAEs, HMMs, Agglomerative Clustering, T-SNE, UMAP