

# Mohammed Y. Zaid

US Citizen | (562) 417-5854 | [mdyasinzaidabir@gmail.com](mailto:mdyasinzaidabir@gmail.com) | LinkedIn: [mohammed-zaid](#) | Github: [mzaid03](#)

## EDUCATION

### University of California, San Diego

B.S. in Mathematics & Computer Science - GPA: 3.50, Dean's Honors

La Jolla, California

Expected Graduation, June 2026

**Relevant Coursework:** Algorithmic Design and Analysis, Computer Systems Organization, Operating Systems, Software Engineering, Networks and Communications, Digital Architecture, Computation and Hardware Acceleration

## EXPERIENCE

### Muslim Tech Collaborative

Vice President

La Jolla, CA

April 2024 - Present

- Constructed **10+** full-stack apps using **React/Node.js**, applying agile sprints to boost member skills **60%+**.
- Developed ML pipelines with TensorFlow, streamlining preprocessing and training to reach **>95%** accuracy.
- Facilitated **10+** resume workshops, creating ATS-ready templates that improved internship callbacks by **30%**.
- Led more than **30** collaborative projects, enforcing **Git/Agile practices** to cut delivery time by **35%**.

### VEX Robotics

Founder & President

Lake Elsinore, CA

June 2021 - July 2022

- Formed an organization of **150+** members and served as a mentor, motivator, and team-builder.
- Programmed **1,200+** lines of **C** for autonomous object manipulation, integrating precise motor control.
- **Applied data-driven** tuning to boost robotic precision by 50% and cut operational errors by 30%.
- **Troubleshoot embedded** control systems and optimized performance for high-speed robot operation.

## PROJECTS

### To-Do Management System

August 2025 - Present

- Achieved **100%** Railway deploys via a 2-stage Dockerfile, Prisma migrations, **Next.js 14** with **Node 18**.
- Ensured **100%** TLS-encrypted CRUD operations with Postgres, `sslmode=require` to maintain functionality.
- Delivered **6+** UX boosts with loaders, progress bar, Ctrl+K, sorting, and chips to streamline the experience.
- Enabled **1-cmd**, type-safe builds using **TS 5.5**, ESLint, Prisma generate, **Git/GitHub workflow**.

### IoT Botnet Detection System

August 2025 - September 2025

- Refined scalable ML pipeline via UCI N-BaIoT preprocessing, enabling analysis of **7M+** records.
- Improved dataset solidity by removing **157k+** duplicates and fixing imbalance, boosting fairness by **92%**.
- Reached **99.96%** accuracy through Decision Tree training with tuned depth, reducing errors to only **86**.
- Validated intrusion detection via correlation heatmaps on **205k** test samples, ensuring scalable deployment.

### FIFA Rankings & Political Corruption Analysis

March 2025 - June 2025

- Engineered a Python pipeline across **106** countries and **400k+** data points, modeling FIFA trends.
- Automated **1M+** CPI, press freedom, and GDP transformations, uncovering corruption-ranking links.
- Built **25+** dynamic visualizations and **3 K-Means** clusters, exposing state-sponsored sportswashing.
- Executed large-scale regression analysis on **100+** models, confirming governance's impact on football.

### DocSync Web Platform

September 2024 - December 2025

- Enabled real-time collaboration for **100+** users using React, TipTap, Node.js, and Yjs (**<10 ms** latency).
- Deployed Redis-backed presence tracking to maintain multi-user synchronization and state consistency.
- Enhanced usability with dark-mode UI, automated **CI/CD principles**, and cloud-native containerization.
- Experimented with GenAI-powered editing tools to improve productivity and reduce manual review time.

## SKILLS

**Languages:** Python, Java, JavaScript, MATLAB, C, C++, Typescript, Go

**Cloud & DevOps:** AWS (EC2, S3, Lambda), Docker, CI/CD Pipelines, Linux, Microservices, Prisma, Railway

**Frameworks & Tools:** React.js, Next.js 14, Node.js, Tailwind CSS, Redis, Firebase, Git/GitHub, REST APIs

**AI & Data:** TensorFlow, Pandas, NumPy, Matplotlib, Scikit-learn, Data Visualization, Statistical Modeling

**Practices:** Agile, SDLC, Version Control, Debugging & Troubleshooting, Distributed Systems, Operational Excellence

**Certifications:** HackerRank Software Engineer, HackerRank Python developer, Advanced SQL Programmer, Advanced Go Programmer, Advanced JavaScript programmer