

# Mohammed Y. Zaid

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## EDUCATION

University of California, San Diego

La Jolla, California

*B.S. - Mathematics & Computer Science*

*Expected Graduation, June 2026*

**Relevant Coursework:** Advanced Data Structures, Software Engineering, Supervised Machine Learning, Components and Design Techniques for Digital Systems, Computing in Python, Discrete Mathematics

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## EXPERIENCE

Muslim Tech Collaboration

La Jolla, CA

*Vice President*

*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 **30+** collaborative projects, enforcing Git/Agile practices to cut delivery time by **35%**.

VEX Robotics

Lake Elsinore, CA

*Founder & President*

*June 2021 - July 2022*

- Formed an organization of **100+** 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 advanced sensor fusion and path planning techniques to optimize robotic task execution.
  - Served as lead driver in **20+** test sessions, boosting speed by **50%** and reducing errors by **30%**.
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## PROJECTS

PrioritiTask

*August 2025 - Present*

- Achieved **100%** Railway deploys via **2-stage** Dockerfile, Prisma migrations, **Next.js 14 + Node 18**.
- Ensured **100%** TLS + offline CRUD with Postgres (**Prisma 5**), sslmode=require, localStorage fallback.
- Delivered **6+** UX boosts: loaders, progress bar, Ctrl+K, sorting, chips, animated refresh.
- 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 through 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

*Mar 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.

SyncDocs

*September 2024 - December 2025*

- Enabled seamless editing for **100+** users through React, TipTap, Node.js, Yjs, with sub-**10ms** latency.
  - Implemented scalable collaboration via Redis-backed presence, ensuring multi-user synchronization.
  - Enhanced usability via dark-mode UI and CI/CD pipelines, streamlining deployment processes.
  - Achieved local accessibility through containerized microservices and cloud-native design.
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## SKILLS

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

**Technologies & Tools:** ReactJS, Next.js, Tailwind CSS, Node.js, Firebase, AWS, Docker, Git/GitHub, Figma, HTML, CSS3, JavaScript, TypeScript, RESTful APIs, Pandas, NumPy, Matplotlib, Data Visualization, Cloud Deployment, CI/CD Pipelines, Responsive Design, Cross-Platform Development, Agile

**Platforms:** Linux, MacOS, Microsoft

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