

Mohammed Y. Zaid

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EDUCATION

University of California, San Diego

La Jolla, California

B.S. - Mathematics & Computer Science

GPA: 3.5/4

Expected Graduation, June 2026

Relevant Coursework: Advanced Data Structures, Software Engineering, Supervised Machine Learning, Components and Design Techniques for Digital Systems, Foundations in Numerical Analysis, Discrete Mathematics

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

FIFA Rankings & Political Corruption Analysis | *Python, Numpy, Pandas, Matplotlib, Statistical Modeling*

- 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.

IoT Botnet Detection System | *Python, NumPy, Pandas, Scikit-learn, Matplotlib, Seaborn, Machine Learning*

- 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.

PrioritiTask | *Next.js, Tailwind CSS, JSON, Prisma, PostgreSQL, REST APIs, ESLint, PostCSS, Railway*

- 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.

SyncDocs | *React, TipTap, Node.js, Yjs, WebSockets, HTML, CSS, JSON, TypeScript, npm, Docker, Vite*

- 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