Mohammed Yasin Zaid

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EDUCATION

University of California, San Diego   **La Jolla, California**
B.S. in Mathematics & Computer Science - GPA: 3.50, Dean's Honors   *Expected Graduation, March 2027*
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   **La Jolla, CA**
Vice President   *September 2022 - Present*
- Taught **150+** students C++ and software development tools, including Git, Valgrind, gdb, JUnit, and Unix architecture for data structure courses.
- Constructed **10+** full-stack apps using **React/Node.js**, applying agile sprints to boost member skills.
- Developed **Machine Learning pipelines** with TensorFlow, streamlining preprocessing and training to reach **99%** accuracy.

VEX Robotics   **Lake Elsinore, CA**
Founder & President   *August 2021 - June 2022*
- Formed an organization of **100+** members and served as a mentor, motivator, and team-builder.
- Applied **data-driven** tuning to boost robotic precision by **50%** and cut operational errors by **30%** using **C**.
- **Troubleshot embedded** control systems and optimized performance for high-speed robot operation.

PROJECTS

Task Manager   *August 2025 - Present*
- Developed a web application with a team of 3 for students to keep track of homework assignments via a to-do list and calendar.
- Emphasized **full-stack development** using **HTML/CSS** for front-end design and **JavaScript** for dynamic user interaction.
- Worked in an **Agile** environment with weekly sprint-planning meetings and helped decompose features into **sprint backlogs** for iterative delivery.

IoT Botnet Detection System   *August 2025 - September 2025*
- Refined scalable **ML pipeline** via UCI N-BaIoT dataset, enabling analysis of **7 Million +** records to detect device-specific cyberattacks, reducing potential system downtime and data breaches.
- Improved data cleaning and rebalancing by removing **157K+** duplicates and correcting class imbalance, improving dataset fairness by **92%**.
- Trained a Decision Tree Classifier, achieving **99.96%** accuracy with only **86** misclassifications on **205K** samples.

FIFA Rankings & Political Corruption Analysis   *March 2025 - June 2025*
- Developed a **data analysis pipeline** in **Python** to study governance impacts on FIFA rankings across **106** countries.
- Automated **1M+** CPI, press freedom, and GDP data transformations, revealing strong correlations between corruption levels and national team performance.
- Built **25+** visualizations and **3** K-Means clusters to uncover statistical patterns linking governance indices with FIFA standings.

SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, C++, C, Go, MATLAB
Frameworks/Technologies: React.js, Next.js 14, Node.js, Tailwind CSS, Redis, Prisma, TensorFlow, Scikit-learn, Pandas, NumPy, Matplotlib
Cloud & DevOps: AWS (EC2, S3, Lambda), Docker, CI/CD Pipelines, Linux, Microservices, Railway
Databases & Development Practices: PostgreSQL, SQL, NoSQL, Agile, SDLC, Debugging, Distributed Systems, Operational Excellence
Certifications: HackerRank – Advanced Python, Advanced JavaScript, Basic SQL, Basic Go, Software Engineer