Mikaeel Khan

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Education

University of Houston — Houston, TX
Major in Computer Science, Minor in Biology — *Aug. 2024 – Present*

Experience

Software Engineer — Jun. 2024 – Nov. 2024
MedLit AI — *Houston, TX*

- Designed and implemented a Python REST API using Flask to serve kidney-transplant AI models, enabling secure, scalable integration into clinical decision-support systems.
- Developed comprehensive unit and integration test suites (pytest) for AI modules, driving code coverage above 95% and catching regressions early.
- Refactored core inference pipelines—optimizing data preprocessing and model-loading routines—to reduce end-to-end latency by 40% under simulated production loads.
- Automated CI/CD for model training and deployment using GitHub Actions and Docker, enabling zero-downtime updates and consistent staging releases.

Software Engineer — Jan. 2025 – Present
HealthQuest Infusion & Specialty — *Houston, TX*

- Designed and implemented a Python REST API using Flask to serve kidney-transplant AI models, enabling secure, scalable integration into clinical decision-support systems.
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- Refactored core inference pipelines—optimizing data preprocessing and model-loading routines—to reduce end-to-end latency by 40% under simulated production loads.
- Automated CI/CD pipelines for model training and deployment using GitHub Actions and Docker, reducing release cycle times by 50% and cutting staging failures by 70%

Software Engineer — May. 2025 – Present
RiftCoach — *Houston, TX*

- ntegrated containerized AI inference into the in-game overlay, cutting latency by 40% (¡500 ms) and scaling user load 3×.
- Engineered an event-driven telemetry pipeline, trimming data processing time by 30%.
- Automated CI/CD pipelines with container orchestration and tests, slashing deployment time by 60%.
- Refactored core services and optimized load balancing, boosting capacity 50% and ensuring 99.9% uptime.

Technical Skills

Languages: Java, Python, C, C++m Go, JavaScript, Kotlin, SQL, MySQL, TypeScript
Framework & Tools: Git, VS Code, Visual Studio, Replit. Linux, ROS, Matlab Simulink. Docker

Awards

FIRST Robotics World Championship Qualifier — Mar. 2022
Strake Jesuit College Preparatory — *Houston, TX*

- Co-authored the Java-based state machine for multi-step autonomous routines, boosting routine success rate by 60%.
- Engineered CAN-bus communication with fail-safe watchdogs, ensuring 99.5% match-time code reliability.
- Mentored 5 teammates on Git-based workflows and test-driven development, cutting integration conflicts by 40%.

FIRST Robotics World Championship Qualifier — Mar. 2023
Strake Jesuit College Preparatory — *Houston, TX*

- Developed a C++ command-based control framework (WPILib) to orchestrate drive, shooter, and intake subsystems, reducing manual tuning time by 80%.
- Implemented an OpenCV vision pipeline for target tracking, achieving 95% detection accuracy under competition lighting.
- Tuned multi-sensor PID loops (encoders, gyro) to cut autonomous path drift by 75% over 5 m runs.
- Built a GitLab CI/CD workflow for automated code validation and RoboRIO deployment, slashing deploy-to-test cycles from 30 min to 5 min.