Zaid Khan

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EDUCATION

Kennesaw State University — Atlanta, GA
Bachelor of Science in Computer Science — *Expected Graduation, December 2025*
- **Concentration:** Machine Learning and Artificial Intelligence

EXPERIENCE

Delta Air Lines — Atlanta, GA
Data Science Intern – Python, Microsoft Suite, AWS Cloud — *May 2025 – August 2025*
- Developed modular Python pipelines using AWS Athena and Lambda to clean and validate large-scale GSE telematics data from 9 Delta hubs, applying timestamp alignment, outlier detection, and imputation techniques.
- Diagnosed and flagged malfunctioning telematics devices across 2 hubs using automated anomaly detection scripts, contributing to a reduction in diagnostic latency and improved uptime of critical GSE assets.
- Conducted EDA on airport usage trends to inform an ML-based GSE demand prediction model using Python and statistical clustering; supported long-term resource planning through time-based utilization patterns.
- Forecasted predictive maintenance (PM) schedules for baggage tractors, tow tractors, and belt loaders using Facebook Prophet, analyzing milestone data and aligning maintenance intervals with GSE actual usage hours.

Web Development Freelancing — Lilburn, GA
Web Developer – HTML, CSS — *August 2024 – Current*
- Developed and deployed a responsive personal portfolio using HTML and Tailwind CSS, featuring project galleries and contact forms; optimized for mobile performance and hosted via Vercel to ensure fast load times and high uptime.

J's Restaurant — Marietta, GA
Full Stack Developer – Python, HTML, CSS — *Jan 2025 – May 2025*
- Designed and implemented a full-stack restaurant management system using Python (Flask), HTML, and CSS to track table assignments, manage orders, and streamline kitchen-to-table workflows.
- Collaborated with a 4-person team using Agile methodologies with weekly standups and Git-based version control to track sprint progress, improve code delivery cadence, and ensure smooth coordination.

KSU VEXU Robotics Team — Marietta, GA
OWL Robotics Programming Lead – C++ — *Aug 2022 – August 2024*
- Led a programming subteam to develop control software for 8 VEXU competition robots using C/C++, contributing to a top 3 global ranking in both head-to-head and skills-based challenges.
- Designed and calibrated custom PID controllers in C++ using encoder and sensor feedback to improve motor response precision across varying speed regimes, reducing drift and overshoot in autonomous routines.
- Programmed autonomous and teleoperated routines for multi-subsystem robots including arm actuators, drive trains, and scoring systems, enabling successful navigation of complex game terrains.
- Managed Git workflows for a 13-member robotics team; onboarded and mentored new members on version control practices and C++ codebase structure to accelerate their integration and code contributions.

PROJECTS

Live Traffic Sign Detection | *Python, OpenCV, Pytorch* — August 2024 – November 2024
- Developed a real-time traffic sign detection system using a ResNet-152 CNN trained on the GTSRB dataset, achieving reliable classification performance across multiple traffic categories.
- Implemented OpenCV-based video processing pipeline to capture live frames, preprocess input, and overlay top-1 label predictions with 68% accuracy on real-time footage.

Diabetic Retinopathy Classification using Deep Learning | *Python, Pytorch* — August 2024 – December 2024
- Fine-tuned a pretrained ResNet-50 in PyTorch for diabetic retinopathy detection using retinal fundus images, achieving 98% accuracy on a labeled validation set.

ACTIVITIES AND LEADERSHIP

KSU VEXU Robotics Team — August 2023 – August 2024
- Managed 50+ members, lab logistics, and internal communication using Notion, Slack, Outlook, and Google Calendar; improved member retention and team organization.
- Oversaw $15,000 annual budget for competitions, travel, and outreach, ensuring alignment with sponsorship requirements and event timelines.
- Mentored 20+ student robotics teams across GA and the Southeast, helping multiple novice teams qualify for the VEX World Championship.

TECHNICAL SKILLS

Languages: Java, Python
Frameworks: Pytorch, Flask, AWS Athena
Developer Tools: Git, AWS Suite, Google Suite, Microsoft Suite, VS Code, Vercel, Heroku