

# Zaid Khan

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## EDUCATION

### Kennesaw State University

Bachelor of Science in Computer Science

- **Concentration:** Machine Learning and Artificial Intelligence

Atlanta, GA

Expected Graduation, December 2025

## 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