

# Zaid Khan

US Citizen | [zaidkhan5213@gmail.com](mailto:zaidkhan5213@gmail.com) | (470)-430-0778 | [linkedin.com/in/zaid-khan-cs/](https://www.linkedin.com/in/zaid-khan-cs/) | GitHub: [zaidkhan05](https://github.com/zaidkhan05) | [zaidk.tech](https://zaidk.tech)

## EDUCATION

### Kennesaw State University

B.S. in Computer Science

Marietta, Georgia

Expected Graduation, May 2026

- **Concentrations:** Artificial Intelligence and Machine Learning
- **GPA:** 3.46/4.00, *Dean's List*
- **Related Coursework:** Artificial Intelligence, Machine Vision, Machine Learning, Data Structures & Algorithms, Computer Organization and Architecture, Operating Systems, Data Analytics, Database Systems

## EXPERIENCE

### KSU VEXU Robotics Team

OWL Robotics Programming Lead

Marietta, Georgia

Aug 2022 – May 2024

- Led a team that built 8 VEXU robots using C/C++ for a skills challenge competition and placed in the top 3 worldwide.
- Used C++ to design and implement a field-oriented positioning system using odometry, enabling robots to accurately navigate a 12ftx12ft field autonomously amidst external interactions with other robots and game elements.
- Developed and fine-tuned PID controllers using C++ to ensure precision in movements across varying speeds using feedback loops with motor encoders and third-party sensors to maintain accuracy during complex maneuvers.
- Engineered and programmed robots to work seamlessly with multiple subsystems such as object manipulation, terrain traversal, and dynamic scoring mechanisms to enhance efficiency in both autonomous and driver-controlled modes.
- Leveraged git to allow for collaboration between 13 team members to work around multiple devices.
- Debugged issues regarding the use of third party sensors and libraries such as odometry pods and OpenGL.

### Code Ninjas

Coding Instructor

Snellville, Georgia

Oct 2023 – May 2024

- Taught 20+ students daily the fundamentals of programming and game development using Python and JavaScript.
- Instructed 5+ students daily in the basics of game development and debugging, utilizing C# and the Unity engine.

## PROJECTS

### E-Commerce Website with Database Integration

Database Systems Final Project

Atlanta, Georgia

Nov 2024 – Dec 2024

- Designed and implemented a database-driven shopping cart web application using SQL Server, Entity Framework, and C#, transitioning from concept to a functional e-commerce platform.
- Built and normalized a relational database structure with seven interconnected tables to efficiently manage customer data, product inventory, and transactional records.
- Leveraged Visual Studio 2022 and SQL Management Studio for development, debugging, and database updates.
- Developed admin and checkout functionality, enabling user account management, order summaries, and purchase history review.

### Live Traffic Sign Detection

Machine Vision Final Project

Atlanta, Georgia

Oct 2024 – Nov 2024

- Designed and implemented a traffic sign recognition system using a ResNet-152 CNN model trained on the GTSRB (German Traffic Sign Recognition Benchmark) dataset with 43 unique traffic sign classes.
- Processed video input using OpenCV to display predicted sign class and confidence score on video frames.

### Diabetic Retinopathy Classification using Deep Learning

Machine Learning Project

Atlanta, Georgia

Oct 2024 – Nov 2024

- Designed and implemented a deep learning model using a fine-tuned ResNet-50 in PyTorch to classify Diabetic Retinopathy in retinal images, achieving upwards of 98% accuracy.
- Streamlined data processing with custom dataset classes and DataLoader, enabling efficient batch loading and augmentations (resize, normalize) to enhance model robustness and performance.

### Web App Portfolio

Personal Project

Atlanta, Georgia

June 2024 – Present

- Developed an interactive web app using Heroku, Flask, HTML, Tailwind, and Python, allowing users to alter certain parameters of my projects to explain and visualize the concepts learned.

## ACTIVITIES AND LEADERSHIP

### Georgia V5RC

VEX Robotics Mentor

Atlanta, Georgia

Aug 2022 – Current

- Mentored 20+ robotics teams in Georgia and the southeast US helping novice teams make it to the final rounds at the VEX Robotics World Championship.
- Ran 3 local camps and 10+ competitive events as part of community outreach to introduce and build a foundation of STEM for 1000+ students.

### KSU VEXU Robotics Team

VEX Robotics Team Lead

Marietta, Georgia

Aug 2023 – May 2024

- Led and coordinated a team of 50+ members, managing scheduling, lab space, and collaboration between students and professors using tools like Slack, Outlook, and Google Calendar to optimize efficiency in preparation for events.
- Managed a \$15,000 budget to support participation in VEX and Combat Robotics events, overseeing the allocation of resources for materials, travel, and community outreach initiatives.

## SKILLS

**Languages:** Python, Java, C, C++, C#, SQL, HTML, CSS

**Libraries and Frameworks:** Pytorch, Numpy, Pandas, Matplotlib, Pillow, Scikit, Heroku, Flask

**Tools and IDEs:** Git, Visual Studio, IntelliJ, Pycharm, Windows, Linux, VIM, Office Suite, Google Suite, SQL Management Studio