Ethan Leitner

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EDUCATION

Kennesaw State University   **Marietta, GA**
Bachelor of Science in Computing 2026   *June 2022 – Present*

EXPERIENCE

KSU Electric Vehicle Team
Member   *August 2022 - Present*
C++, Python, ROS 2, GitLab, Docker
- Led the switch to real-time object detection using Darknet YOLOv4 and depth estimation utilizing a binocular camera
- Created tools to assist in the tuning process of certain kart variables
- Created multiple guides to set up our simulator environment and depth camera with computer vision

Alpharetta Robotics Club
Mentor   *August 2019 - Present*
Java, GitHub
- Captain of FIRST Tech Challenge (FTC) team 12864 for two years
- Captain of FIRST Robotics Competition (FRC) team 6905 for one year
- Won several programming awards and made it to FTC world championship
- Currently teaching the new members

Projects

FTCLib
Co-Owner   *January 2021 - Present*
- A library that makes programming for FTC easier
- Largely a port of the FRC library WPILib to FTC
- Provides pre-built vision pipelines, path generation and following algorithms, and various quality of life functions

ARC Inventory System
Creator   *September 2021 – September 2021*
- A way for the Alpharetta Robotics club to organize parts and tools
- A go application that interfaces with a google sheet that contains all the parts and tools
- Barcode on part is scanned and the person selects whether they are checking in or out. This application updates the google sheet with their name, time of scan, and whether the part has been checked out or in

Trajectory Visualizer
Creator   *January 2022 – Present*
- An application that visualizes trajectories created using the FTCLib Trajectory generator
- Users can create a visualize trajectories, change robot constraints to match theirs, save/load the trajectories they created, and export the trajectories as Java code to be used within FTCLib
- Trajectories can also be paused and replayed to view the robot's position and movement at certain timestamps

SKILLS

Languages: Java, C#, Python, Go, C++, HTML/CSS, JavaScript
Frameworks: ROS2, .NET, Qt
Technologies: Git, Docker, Anaconda, 3D Printing and Modelling