Aidan Reilly

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Experience

Komatsu 05/2024 - present
Robotics Software Engineer Intern *Pittsburgh, PA*

- Developed software for autonomous mining vehicles in various underground GPS-denied evnironments.
- Performed sensor fusion between robotics sensors to efficiently map out mines and optimize path planning.

Komatsu 05/2023 - 08/2023
Robotics Software Engineer Intern *Pittsburgh, PA*

- Designed lidar perception algorithms to segment objects, match features, and estimate volume and velocity.
- Implemented nodes that aligned pointclouds for multi-vehicle localization and sensor calibration.
- Wrote an executable program that procedurally generated simulated environments of underground mines.
- Worked with a diverse group of engineers, wrote and documented clean code, and maintained code databases.

University of Pittsburgh 08/2022 - 05/2023
Teaching Assistant, Discrete Mathematics *Pittsburgh, PA*

- Supported students through weekly recitation, tutoring, and office hours.
- Managed grading for homework and quizzes.

Projects — Portfolio

ANA (Autonomous Navigation Assembly) | github.com/Razzi86/ana_bot 08/2023 - present

- Designed and developed an autonomous car that fuses lidar and camera to perform autonomous navigation
- Researched and prototypes multiple versions, implementing perception, control, and path planning

MIT-PITT-RW - Perception Team | driverless.mit.edu/mitpittrw 01/2024 - present

- Developing software for an autonomous racecar that competes at speeds of over 150mph.
- Trained machine learning models for real-time obstacle recognition and avoidance using lidar, camera, and radar

Clothing Segmentation Extension | github.com/DW-Han/fashion-segmentation-rep 08/2023 - 09/2023

- Developed a Chrome extension for live clothing segmentation and classification, achieving 86% accuracy
- Placed 2nd overall in the 2023 SteelHacks hackathon, winning the "User Experience" category

Box Game | github.com/Razzi86/Box_Game 08/2023 - 11/2023

- Engineered a two-player handheld game using Raspberry Pi and electrical engineering

Education

University of Pittsburgh 2024
Honors *- B.S. in Computer Science, Minor in Mathematics, GPA: 3.6*

Delaware County Community College 2021
Honors *- A.S. in Computer Science, GPA: 3.9*

Coursework: Computer Vision, Deep Learning, Artificial Intelligence, Operating Systems, C++

Skills

Languages: C++, Python, MATLAB, CUDA, MIPS, x86, Blueprint
Development: ROS2, OpenCV, PyTorch, TensorFlow, Arduino, Docker, Azure DevOps, Git, Jetson, YOLO, CAD
Robotics: SLAM, ICP, Nav2, Unreal Engine 5, Gazebo, Linux