

# Aidan Reilly

610-608-8166 | [arr160@pitt.edu](mailto:arr160@pitt.edu) | [linkedin.com/in/aidan-r-reilly](https://www.linkedin.com/in/aidan-r-reilly) | [github.com/Razzi86](https://github.com/Razzi86) | [portfolio](#)

## EXPERIENCE

### Komatsu Mining

05/2024 - present

*Robotics Software Engineer Intern*

*Pittsburgh, PA*

- Developed software for autonomous mining vehicles in various underground GPS-denied environments.
- Performed and iteratively optimized sensor fusion for robust mapping, path planning, control, and autonomy.
- Increased efficiency by 30%, potentially driving \$800m in annual revenue; drastically improved safety.
- Focus in Mapping and Perception; Used ROS2, LiDAR, Radar, Odometry, SLAM, Unreal Engine 5.

### Komatsu Mining

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](https://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 designed multiple prototypes, implementing perception, control, and path planning

### MIT-PITT-RW, Perception Team | [driverless.mit.edu/mitpitttw](https://driverless.mit.edu/mitpitttw)

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

### Professional Tournament Poker

04/2019 - present

- Coached by super pros Chance Kornuth (#1 worldwide, 2020), James Romero (World Poker Tour Champ, 2016)
- Extensive mastery of game theory, statistics, and probability; Developed UBerkely poker course; Private coach

### Clothing Segmentation Extension | [github.com/DW-Han/fashion-segmentation-rep](https://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 2<sup>nd</sup> overall in the 2023 SteelHacks hackathon, winning the "User Experience" category

## EDUCATION - *Combined Cumulative GPA: 3.72*

### 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:** Data Structures, Computer Vision, Deep Learning, Software Quality, Operating Systems

## SKILLS

**Languages:** C, C++, Python, CUDA, MATLAB, MIPS, x86, Blueprint, Java

**Development:** OpenCV, PyTorch, TensorFlow, JUnit, Arduino, Docker, Azure DevOps, Git, Jetson, YOLO, CAD

**Robotics:** ROS2, Perception, Mapping, Control, SLAM, Nav2, ICP, Unreal Engine 5, Gazebo, Linux/Ubuntu