

Aidan Reilly

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

EXPERIENCE

Robotics Software Engineer Intern

05/2024 - present

Komatsu Mining

Warrendale, PA

- Developing autonomous vehicles for underground mining using ROS2 and Unreal Engine 5

Robotics Software Engineer Intern

05/2023 - 08/2023

Komatsu Mining

Warrendale, PA

- Led the development of a fully autonomous mining vehicle from simulation to physical production, increasing operational efficiency by over 25% and driving \$1.1 billion in annual revenue
- Increased performance by 20x using CUDA, improving the quality of simulations and pointcloud processing
- Managed 10,000+ lines of code with Docker and Azure DevOps in a Linux environment
- Utilized the latest technologies of C++, Python, 3D Lidar, Radar, IMU, ROS2, SLAM, NAV2, ICP
- Presented progress to Vice Presidents, resulting in increased funding and project expansions

Undergraduate Teaching Assistant - Discrete Mathematics

08/2022 - 05/2023

University of Pittsburgh

Pittsburgh, PA

- Supported students through weekly recitation, tutoring and office hours; managed grading and provided tutoring

PROJECTS

ANA - Autonomous Navigation Assembly | github.com/Razzi86/ana_bot

08/2023 - present

- Engineered an autonomous robot car using C++, ROS2, SLAM, NAV2, Lidar, Depth, Arduino, Jetson
- Performs sensor fusion to achieve robust localization, control, and path planning

MIT-PITT-RW Perception Team | driverless.mit.edu/mitpitttw

08/2023 - present

- Contributed to an autonomous racecar by developing ML models for real-time vehicle and obstacle recognition
- Modified docker to work on ARM64 computer architecture, enabling development on the NVIDIA Jetson Orin

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

08/2023 - present

- Led the development of an AI-based Chrome extension for live clothing segmentation, achieving %86 accuracy
- Utilized Pytorch, TensorFlow for model, JavaScript, CSS, HTML for front and back end

Box Game | github.com/Razzi86/Box_Game

08/2023 - present

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

EDUCATION

University of Pittsburgh

05/2024

*B.S. in Computer Science, Minor in Mathematics, **Honors**, GPA: 3.6*

Delaware County Community College

05/2021

*A.S. in Computer Science, **Honors**, GPA: 3.9*

Coursework: Deep Learning, Computer Vision, AI, Data Structures & Algorithms, C++, Python

SKILLS

Languages: C/C++, Python, MATLAB, Java, JavaScript, URDF, Blueprint

Tools: Docker, Azure Devops, Git/GitHub, NVIDIA Jetson, Unreal Engine 5, Gazebo, ROS2

Technologies: PyTorch, TensorFlow, OpenCV, CUDA, Ubuntu, PyQt5, SLAM, Nav2, PCL, ICP, YOLO, CAD