Aidan Reilly

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WORK EXPERIENCE

2024-Present — **Robotics Software Engineer**, *Komatsu*, Pittsburgh.

- Developing autonomy software stacks using ROS2, Ubuntu, and NVIDIA Jetson AGX.
- Configured LiDAR, RADAR, Cameras, and IMUs, performing sensor fusion and SLAM for autonomous navigation in dust-filled and GPS-denied environments.
- Implemented computer vision algorithms for object classification and data collection.
- Created realistic underground mining simulations in Unreal Engine 5 and Foxglove Studio, delivering powerful product demos and increasing development turnover by over 30%.
- Leading the development of autonomous mining vehicles, estimated to increase operational efficiency by 40% and save over $20 million by shifting autonomy development in-house.

Summer 2024 — **Robotics Software Engineer Intern**, *Komatsu*, Pittsburgh.

Summer 2023 — **Robotics Software Engineer Intern**, *Komatsu*, Pittsburgh.

2022-2024 — **Teaching Assistant**, *Discrete Mathematics*, University of Pittsburgh.

2019-2021 — **Network Engineer Intern**, *Syncretic*, Wilmington.

- Gained exposure to common communication protocols such as UDP, TCP/IP, DDS, etc.

PORTFOLIO

ANA (Autonomous Navigation Assembly) | github.com/Razzi86/ana_bot
- Built an autonomous robot car from scratch with 3D printing, LiDAR, Camera, and encoder motors

MIT-PIT-RW, Perception Team | driverless.mit.edu/mitpittrw
- Labeled data and trained models for an autonomous racecar that competes internationally at speeds of 150mph.

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

Professional Tournament Poker
- Coached by super pros Chance Kornuth (Former #1 worldwide), James Romero (World Poker Tour Champion).
- Extensive mastery of mathematical risk taking and game theory; co-developed UBerkeley poker course Stat 198.

EDUCATION

Georgia Institute of Technology — 2027
O.M.S. in Machine Learning
Coursework: Robotics: AI Techniques

University of Pittsburgh — 2024
Honors - B.S. in Computer Science, Minor in Mathematics, GPA: 3.6
Coursework: Computer Vision, Deep Learning, Practical AI

SKILLS

Robotics:	ROS2 Humble/Foxy, NVIDIA Jetson, SLAM, Ubuntu, CUDA, Autoware, DDS
Libraries:	OpenCV, Nav2, PCL, ICP, SLAM Toolbox, RTAB-Map, PyTorch, Tensorflow, NumPy, Pandas, Qt5
Languages:	C++17, Python3, Bash, URDF, Java, C, MATLAB
Software:	Docker, Unreal Engine 5, Git, Gazebo, Foxglove Studio, Rviz2, VS Code, Blender, CAD