ADAM DRISCOLL

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EDUCATION

CARNEGIE MELLON UNIVERSITY
MS IN ROBOTIC SYSTEMS DEVELOPMENT
12.2018 | Pittsburgh, PA
GPA: 3.89

WORCESTER POLYTECHNIC INSTITUTE
BS IN ROBOTICS ENGINEERING
05.2012 | Worcester, MA

COURSEWORK:
Deep Learning
Geometry-Based Methods in Vision
Computer Graphics
Computer Vision
Localization and Mapping
Machine Learning
Manipulation, Estimation, and Control

LINKS

Github:// jdriscoll319
LinkedIn:// adam-driscoll

SKILLS

Languages:
C++ | Python | MATLAB | LATEX

Frameworks, Tools & Libraries:
Git | PyTorch | Numpy | ROS
Gazebo | MySQL

Operating Systems:
Ubuntu | Windows

PROFESSIONAL EXPERIENCE

HIVEMAPPER, INC | COMPUTER VISION ENGINEER
09.2019 – Present | Burlingame, CA

- Designed, built, and maintained Open Telemetry Kit, an open source python tool to automatically extract drone camera and flight data to feed into the Hivemapper platform to improve 3D modeling and georegistration
- Developed algorithm to determine confidence in point cloud vertices and remove low confidence points to improve final point cloud and mesh quality
- Enhanced approach to detecting and masking video overlays to video and extended this algorithm to apply during mesh texturing

DISCOVERY ROBOTICS | SOFTWARE INTERN
05.2018 – 08.2018 | Pittsburgh, PA

- Built simulation environment in Gazebo to enable rapid iteration on software algorithms
- Modeled flagship robot in simulation including accurate physics, motion model & sensor representation

AMAZON ROBOTICS
OPERATIONAL STABILITY ENGINEER | FIELD SERVICE ENGINEER
02.2013 – 02.2017 | North Reading, MA

- Developed over 20 automation tools to replace manual task execution & reduce system failures
- Analyzed over 200 complex software issues & identified their root causes
- Collaborated with development teams to identify bugs & implement new features
- Troubleshot errors on all hardware components of the Amazon Robotics solution using MySQL queries & internally developed hardware testing tools
- Created MySQL queries to collect data from 29 client facilities & presented this data in a UI using internally developed tools, allowing maintenance teams to efficiently analyze warehouse status

ACADEMIC PROJECTS

GROUNDSBOT | CAPSTONE PROJECT
09.2017 – 05.2018 | CMU | groundsbot.com

- Designed and built an autonomous field robot capable of mowing the rough grass at a golf course
- Created robust perception & localization subsystems by fusing data from Lidar, RTK GPS, IMU & encoders using ROS & C++
- Created GPS waypoint following & control algorithms used in the navigation subsystem of GroundsBot
- Achieved 98.6% coverage of input area, avoidance of 4/5 static obstacles & detection of 22/25 dynamic obstacles

MULTI-ROBOT MAPPING | SLAM COURSE PROJECT
02.2018 – 05.2018 | CMU

- Used the GroundsBot platform in two connected hallways to achieve multi-robot Smoothing and Mapping
- Generated prior by implementing RANSAC algorithm over landmark correspondences
- Created unified global map with 98.2% accuracy by employing Bundle Adjustment to merge datasets