ANDREW **ASHLEY**

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(For more information on projects, skills and more, visit the website listed above)

Computer Engineering student, expected to graduate in Spring 2022, that is passionate about using my knowledge and talents to make a difference. I am currently a Junior at the University of Pittsburgh, majoring in Computer Engineering.

References:
Mike Formica(President-Neya Systems, Adjunct Professor at CMU): mikef@neyasystems.com
Jeff Hyams(Senior Systems Engineer-Neya Systems): jeffh@neyasystems.com

SKILLS AND ACTIVITIES

- Experienced in C++, Java, Python, C, MatLab, C#, SQL, Flask
- ROS and ROS2 experience including vehicle control, perception, planning, and other autonomy
- Experience in Unmanned Aerial Vehicle control with Mavlink, MavSDK
- Experience in Unmanned Ground Vehicle control with JAUS and ROS
- Mission Planning
- sUAS Pilot Certification (Part 107, FAA)
- Aerial Photography and Videography
- Experienced in technical writing
- CAD, through design and simulation
- Excellent leadership skills
- Trained in Machine Learning techniques such as Regression algorithms and neural networks
- Experience with TensorFlow
- Multifaceted interest of both STEM and the Humanities that allows for different perspectives when solving problems
- Pitt Club Tennis
- Pitt Club Swimming

EXPERIENCE

SEPTEMBER 2020 – CURRENT

RESEARCH ASSISTANT, AIRLAB – CARNEGIE MELLON UNIVERSITY

- Contact inspection with a fully actuated hexacopter
- Paper is currently being written

JANUARY 2019 – CURRENT

ROBOTICS SOFTWARE ENGINEER CO-OP, NEYA SYSTEMS

- Wrote the software that integrated a UAV into a multi-agent planning system
- Gained experience operating and writing autonomy software for ground and aerial systems
- Developed a ROS protocol translation node that increased modularity of system to control multiple systems
- Integrated and debugged autonomy software onto a UAV platform in order to test other software
- Worked with UI designers in order to implement a useful control solution for multi-agent missions
- Received my commercial pilots license for small Unmanned Aerial Systems through the FAA
- Won Student Employee of the Year award from Neya's parent company Applied Research Associates(ARA)

MAY 2018 – AUGUST 2018

APPLICATION DEVELOPER INTERN, LISTRAK

- Researched and proved viability of switching the company's current predictive models to the Tensorflow framework
- Implemented many different Machine Learning algorithms in Tensorflow and compared the efficiency and accuracy to current prediction models
- Built web applications, analyzed client data, worked on data cleansing, planned a hackathon

SEPTEMBER 2017 – MARCH 2018

VOLUNTEER, CENTER FOR SPACE, HIGH-PERFORMANCE, AND RESILIENT COMPUTING (SHREC)

- Freshmen Year: tasked with taking online machine learning theory courses and learning TensorFlow Framework in addition to freshman engineering coursework
- Worked on image recognition software.

EDUCATION

EXPECTED GRADUATION: MAY 2022

COMPUTER ENGINEERING, UNIVERSITY OF PITTSBURGH

In Junior year