Hannah DeFazio

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EDUCATION

CLARKSON UNIVERSITY
BS IN COMPUTER SCIENCE
MINOR IN MATHEMATICS
May 2020 | Potsdam, NY

- Honors Program, GPA: 3.722/4.0
- 1 year early graduation

HONORS

- Graduated with distinction
- Honorable Mention Poster Presentation in Computer Science and Engineering at Research and Project Showcase (RAPS)
- National Grid Stipend for Research Opportunities in Sustainable Energy
- Presidential Scholar (Fall '19, Spring '18, '20)
- Dean's List (Fall '17, '18)

SKILLS

PROGRAMMING
Python | C++ | CMake | MATLAB | Docker | Haskell

SOFTWARE EXPERIENCE
UNIX/Linux/Windows
Overleaf/LaTex
Django
Git
OpenCV
KWIVER

TECHNICAL EXPERIENCE
Computer Graphics
Deep Learning
Computer Vision
Machine Shop Training
Jetson TX2/ Nano
Raspberry Pi
Soldering
Agile Development

LEADERSHIP

RESIDENT ADVISOR
TEACHING ASSISTANT FOR PRE-CALC
TARS RESEARCH TEAM LEADER
EID SOCIAL AMBASSADOR @ GE
FY100 PEER EDUCATOR/GRADER
HONORS WEBMASTER
HONORS RECRUITER & PEER MENTOR
SOCIETY OF WOMEN ENGINEERS

PROFESSIONAL EXPERIENCE

RESEARCH AND DEVELOPMENT ENGINEER | Kitware Inc.
May 2020 - present | Carrboro, NC

- Role on the Computer Vision team

SECURITY ENGINEERING INTERN | General Electric Power
May 2019 - August 2019 | Schenectady, NY

- Designed filters on the team's website that narrow down the results displayed for a more intuitive user interface
- Implemented a testing framework with Django and Selenium to enable the team to reach comprehensive test coverage
- Researched and wrote comprehensive documentation on different SAST tools for Python3 projects
- Researched solutions to automate engineers' roles to save business cost

RESEARCH AND DEVELOPMENT INTERN | Kitware Inc.
January 2019 – May 2019 | Clifton Park, NY

- Translated Jetson's pedestrian detector into KWIVER for pipeline execution
- Setup Clearpath's Jackal robot with a Jetson TX2 and ROS for autonomous deployment
- Developed Dockerfiles and Python scripts to setup Intel's OpenVino and Jetson's inference demos for performance analysis
- Translated an image reader from ROS to KWIVER for FlyCapture cameras in order to access and analyze live captures
- Created a face detector based on KWIVER with C++ and Python examples

RESEARCH

TARS, TERASCALE ALL-SENSING RESEARCH STUDIO
October 2017 – May 2020 | Clarkson University

- Developed a Mask R-CNN based object detector for obstacle avoidance deployment on my robot
- Lead a multidisciplinary 7 person team on creating the hardware architecture of my assistive robot prototype
- Worked on building a robot that analyses the walking gait of a subject and will intervene with assistance if it is deemed necessary. Nearly all the parts were custom made and printed in the lab
- Performed system integration to incorporate cognitive load classification framework with my robot control system. Demonstrated that my robotic arm could be controlled based on whether a person was predicted to need assistance.

CAMEL, COMPUTER ARCHITECTURE AND MICROPROCESSOR ENGINEERING LAB
June 2017 – April 2018 | Clarkson University

- Solved dependencies for software installation on our heterogeneous high performance computer cluster
- Researched anomalies in data only exploits and the accuracy of hardware performance counters