# Hannah DeFazio

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## PROFESSIONAL EXPERIENCE

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

- Head programmer and scrum master on the DARPA PTG Kitware team
- Contributed to Kitware's open-source platforms (KWIVER, SMQTK, Girder) on the Computer Vision team
  - Kitware Image and Video Exploitation and Retrieval (KWIVER)
  - Social Multimedia Query ToolKit (SMQTK)
- Handled machine learning experiments; Presents and documents results for evaluation with the team
- Integrated machine learning models into our ROS system for real-time deployment and testing
- Developed CI/CD pipelines on the IARPA HAYSTAC project's GitLab to perform code linting and formatting, build Docker containers, and build/publish Python packages
- Containerized and integrated disinformation analytics into APIs for evaluation on the DARPA SemaFor project
- Developed Airflow DAGs to run via a Kubernetes cluster that read/write data on an AWS S3 bucket
- Led the code review process on multiple teams, including teaching new interns about best software practices, the code review process, and agile development as the Intern Team Leader

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

- 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 Python projects

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

- Created a face detector based on KWIVER with C++ and Python examples
- Developed Dockerfiles and Python scripts to setup Intel's OpenVino and Jetson's inference demos for performance analysis

## RESEARCH

### TARS, TERASCALE ALL-SENSING RESEARCH STUDIO
October 2017 – May 2022 | Clarkson University

- Developed tools to allow the allocation of nodes in a drone cluster to be determined by hardware quality and additional resources such as cameras [M.S. Thesis]
- Led a multidisciplinary 7 person team on creating the hardware and software architecture of an assistive robot prototype [Honors Thesis]
- Performed system integration to demonstrate that the prototype robotic arm could be controlled based on whether a person was predicted to need assistance

## LEADERSHIP

### SCRUM MASTER | Kitware Inc.
May 2023 - present | Carrboro, NC

- Led scrum ceremonies, ensuring adherence to agile principles and facilitating an environment of trust within the team
- Adapted to evolving project needs while maintaining a focus on meeting project goals and balancing concurrent projects' timeline

## EDUCATION

### CLARKSON UNIVERSITY

**M.S. Computer Science**
May 2022 | Potsdam, NY

- **Summa cum laude**

**B.S. Computer Science Minor in Mathematics**
May 2020 | Potsdam, NY

- **Honors Program**
- **Magna cum laude**
- Presidential Scholar (Fall '19, Spring '18, '20)
- Dean's List (Fall '17, '18)

## SKILLS

### PROGRAMMING
Python | C++ | Docker | CMake

### TECHNICAL EXPERIENCE
Software Engineering
Software Development
Agile Development
Artificial Intelligence

### SOFTWARE EXPERIENCE
SLURM | Git/Github | ROS | Overleaf/LaTex | UNIX/Linux

## HONORS

**National Grid Stipend** for Research Opportunities in Sustainable Energy

**Honorable Mention Poster** Presentation in Computer Science and Engineering at Research and Project Showcase (RAPS)

## ADDITIONAL LEADERSHIP

Kitware's Intern Team Leader
TARS Research Team Leader
Resident Advisor
Teaching Assistant for Pre-Calc
Honors Recruiter & Peer Mentor
Society of Women Engineers