ESTHER IN

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY **Expected May 2022**
Bachelor of Science, Electrical and Computer Engineering
Minor: Computer Science, Engineering Leadership Certificate Program
GPA: 3.552/4.3 (Dean's List Fall 2019)
Relevant Courses: Embedded Systems; Introduction to Microelectronics; Digital Logic and Computer Organization; Signals and Information; Introduction to Circuits; Introduction to Machine Learning

PROFESSIONAL EXPERIENCE

CACI International, Reston, VA, *System Engineering Intern Lead* **May-Aug. 2020**

- Led the 5-person intern team in examining commercially available Wireless Access Points for security and implementation issues
- Generated more than 1GB of network traffic data for machine learning training and testing dataset
- Supervised machine learning-based projects that utilized network traffic data to evaluate commercially available network administration and management assistant program
- Compiled technical analysis and coordinated an all-team presentation to senior management

CACI International, Reston, VA, *Innovation Research and Development Intern* **June 2019-Jan. 2020**

- Examined Software-Defined Networking solutions and Zero Touch Provisioning processes for security concerns using commercial hardware
- Evaluated a database of 20,000+ entries for insights into Federal Aviation Administration (FAA) network infrastructure, analyzing trends and data points for data integrity and accuracy using Single Pane of Glass software and Python (Numpy, Pandas) programming
- Compiled technical analysis and presented to senior management

PROJECT EXPERIENCE

Cornell Mars Rover Project Team, Cornell University, *Controls Electrical Team Member* **Oct. 2019-Present**

- Designed a compact motor driver PCB with a PIC32MX530F128H microcontroller in Autodesk EAGLE that will be operating the miniature linear actuator of the competition rover in the 2020 University Rover Challenge
- Manufactured, writing firmware for, and testing the operation of the board with MPLAB and PCAN-view
- Collaborating with Controls Computer Science subteam in order to test autonomous operation of rover

Data Analytics, Montgomery College **June-Aug. 2019**

- Completed data analysis projects using Python (including libraries Pandas, Numpy, and Seaborn) and became proficient at using the data visualization software Tableau

U.S. and International Patent Application **October 2018**

- "Method and apparatus for harvesting electrical energy from air flow in a moving system," PCT/US18/55781, co-inventor, October 2018.

LEADERSHIP EXPERIENCE

Harper Region, *Co-Head Administrator* **Jan. 2015-Present**

- Maintains and assists in the running and development of an international co-op writing community
- Mediates and resolves interpersonal conflicts; maintains the community's complex informational bases

CAMPUS INVOLVEMENT

Society of Women Engineers, Cornell University, *Corporate Liaison* **Sep. 2018-May 2020**

SPECIALIZED SKILLS

Programs: Autodesk EAGLE, Inventor, MPLAB, PCAN-View, Tableau, Word, PowerPoint, Excel
Programming Languages: MATLAB, Verilog, Python 3, Java, C, HTML & CSS
Fabrication Skills: wiring, soldering, multimeters, oscilloscopes, board verification
Foreign Languages: Korean (fluent), French (intermediate)