ESTHER IN

20812 Gaelic Ct
Germantown, MD 20874
Cell: (240) 474-3426

320D Hans Bethe House
Ithaca, NY 14853
Email: ei53@cornell.edu

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: 3.45/4.3 (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, *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
- Collaborated with 6 person IR&D intern to draft, prototype, and test proposed solutions
- Compiled technical analysis and presented to senior management

Cornell University, Ithaca, NY, *Undergraduate Teaching Assistant* **Jan.-May 2020**

- Teaching Assistant for ECE 1210: Computing Technology in Smartphones
- Holds office hours during weekdays, answers Piazza questions from students, proctors and grades examinations

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 with a member base of over 100 as part of the moderator staff team
- Mediates and resolves interpersonal conflicts as well as retain a working knowledge of the community's complex informational bases

CAMPUS INVOLVEMENT

Society of Women Engineers, Cornell University, *Corporate Liaison* **Sep. 2019-May 2020**

SPECIALIZED SKILLS

Programs: Autodesk EAGLE, Inventor, MPLAB, PCAN-View, Tableau, Word, PowerPoint, Excel
Programming Languages: MATLAB, Verilog, Python 3, Java, C, HTML
Operating Systems: Windows 7, Mac OS High Sierra, Linux (Ubuntu)
Fabrication Skills: wiring, soldering, multimeters, oscilloscopes, board verification
Foreign Languages: Korean (fluent), French (intermediate)