

# ESTHER IN

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## **EDUCATION:**

**Cornell University College of Engineering**, Ithaca, NY

*Class of 2022*

Electrical and Computer Engineering (major), Computer Science (major)

Engineering Leadership Certificate Program 2020 Cohort

## **SKILLS & RELEVANT COURSEWORK:**

- Printed Circuit Board Design, Autodesk EAGLE, Quartus II, Verilog, Laboratory Research and Development (including multimeter, signal source, oscilloscope), Data Analytics (including Python libraries Pandas, Numpy, Seaborn), Python 3, Java, Tableau, Project Management, Team Management, Microsoft Office (Word, PowerPoint, Excel), Data Organization, Database Management, HTML & CSS, Basic Computer-Assisted Design, Basic C++
- ECE 3140: Embedded Systems, ECE 3150: Introduction to Microelectronics, ECE 3100: Probability and Inference, ECE 2200: Introduction to Signals and Information, ECE 2100: Introduction to Circuits for Electrical and Computer Engineers, ECE 2300: Digital Logic & Computer Organization, CS 2110: Object-Oriented Programming & Data Structures, CS 2800: Discrete Structures, INFO 1998: Introduction to Machine Learning, ENGR 1210: Computing Technology in Smartphones

## **RECENT EXPERIENCE:**

### **Cornell Mars Rover Electrical Member**

*October 2019 – Current*

- Designed a compact distributed task motor driver PCB in Autodesk EAGLE that will be operating the end effector motor of the competition rover in the 2020 University Rover Challenge.
- Currently assembling, writing firmware for, and testing the operation of the board with MPLAB and PCAN-view.

### **CACI International Innovation Research and Development Intern**

*June 2019 – Current*

- Project Manager for examining Software-Defined Networking solutions and Zero Touch Provisioning processes for security concerns using commercial hardware. Created a project timeline for the six person IR&D intern team regarding drafting, prototyping, and testing proposed solutions, and readjusted the project timeline as necessary throughout the summer.
- Evaluated a database of over twenty thousand 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.

### **Cornell University Undergraduate Teaching Assistant**

*January 2020 – Current*

- Teaching Assistant for ECE 1210. Holds office hours during weekdays, answers Piazza questions as necessary, and grades examinations.

### **Montgomery College Data Analytics**

*June 2019 – August 2019*

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

## **ACTIVITIES:**

### **SWE Corporate Relations Liaison**

*September 2019 – Current*

- Represents the Society of Women Engineers at company information sessions; responsible for communicating with company recruiters and facilitating work at the session.

### **Harper Co-Head Administrator**

*January 2015 – Current*

- 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.

### **U.S. and International Patent Applications**

*October 2018*

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