# ESTHER IN | ei53@cornell.edu & m. (240) 474-3426
20812 Gaelic Ct, Germantown, MD 20874

## EDUCATION:

**Cornell University College of Engineering**, Ithaca, NY *Class of 2022*
Electrical and Computer Engineering (major), Computer Science (major)

## SKILLS & RELEVANT COURSEWORK:

- Python 3, Java, Quartus II, Verilog, Laboratory Research and Development, Data Analytics (including Python libraries Pandas, Numpy, Seaborn), Tableau, Data Organization, Database Management, Project Management, Team Management, Microsoft Office (Word, PowerPoint, Excel), HTML & CSS, Basic Computer-Assisted Design
- Digital Logic & Computer Organization, Computing Technology in Smartphones, Object-Oriented Programming & Data Structures, Differential Equations for Engineers

## RECENT EXPERIENCE:

***CACI International Inc*** *June 2019 – Current*
*Innovation Research and Development Intern*

- Examined Software-Defined Networking solutions and Zero Touch Provisioning processes for security concerns using commercial hardware as part of the six person IR&D team.
- Drafted theoretical solutions for evaluated hardware security problems and collaborated with the team to prototype, test, and develop preliminary solutions.
- 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.
- Programmed commercial hardware using C++ and Arduino IDE in order to prototype radio-based information transmission solutions, and field-tested prototypes at offsite locations.
- Working with open source MQTT data broker software that will interface with end devices and databases to establish a publish-subscription model for further testing.

***Johns Hopkins University*** *June – August 2017*
*Lab Research Assistant, Institute of Cell Engineering*

- Created and maintained cell media, preformed SDS-PAGE gel trials, and utilized laboratory equipment such as an electrophoresis gel imaging system to collect qualitative and quantitative data with minimum supervision.

***FIRST Tech Challenge Team 9450 Falcons FIRST*** *June 2017 – July 2018*
*Electrical Lead, Webmaster, Instructor*

- Managed and participated as part of the electrical sub-team at the FTC World Championships 2018: Detroit.
- Oversaw the electrical sub-team during the shift from a modular system to a one-element technical board. In the role, held meetings with the team in order to establish a common project timeline, coordinating between the electrical and the other individual sub-teams, and troubleshot issues as they arose during and regarding the project timeline.
- Built and maintained the team website https://falconsfirstftc.weebly.com/.
- Drafted, started, and taught the "Girls Just Want to Compute!" and "Girls in Engineering" public classes at the Germantown Public Library in Montgomery County, Maryland, lecturing and leading activities for classes of up to fifteen students.

## ACTIVITIES:

***Society of Women Engineers*** *September 2018 – May 2019*

- Planned, organized, and executed an event for 30 high school attendees as part of the High School Outreach Committee, and was responsible for coordinating with industry speakers from GrammaTech and Corning Incorporated.

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

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