# **ESTHER IN**

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### **EDUCATION:**

## Cornell University College of Engineering, Ithaca, NY

Class of 2022

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

National Merit Scholarship 2018 Semifinalist, Silver President's Volunteer Service Award 2016

## **EXPERIENCES:**

Harper

January 2015 – Current

Co-Head Administrator

- Currently directing an international co-operational writing community.
- Responsible for training and overseeing moderators, maintaining site databases, moderating site content and member participation.
- Responsible for mediating and resolving interpersonal conflicts among members.

## FIRST Tech Challenge Team 9450 Falcons FIRST

June 2017 - July 2018

Electrical Lead, Webmaster, Business Team Member

- Competed with FTC Team 9450 Falcons FIRST at the Maryland State Championships 2018 and FTC World Championships 2018: Detroit.
- Oversaw and managed the electrical sub-team.
- Built and maintained the team website <a href="https://falconsfirstftc.weebly.com/">https://falconsfirstftc.weebly.com/</a> using prebuilt Weebly and HTML/CSS skillset.
- Drafted and edited the business plan for presentation to five sponsors.

## **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 to collect qualitative and quantitative data.

## Poolesville High School

Engineer for Simulated Planet Project

- Drafted and created Computer-Assisted Drawing models of miniature rover prototypes.
- Built miniature rover prototypes, successfully navigated simulated planet terrain using sensors and Arduino boards, and presented data and conclusions.

## **SKILLS AND ACTIVITIES:**

#### Skills

- HTML/CSS, Java, and Python
- Soldering, Computer-Aided Design (novice), Power Tools, Table Saw, and Band Saw

## **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.
- "Method and apparatus for harvesting electric energy from a moving system," U.S. 62/572,391, co-inventor, October 2017.
- "Protective case for mobile device," U.S. 62/579,146, co-inventor, October 31, 2017.

### **Activities**

- Collegiate: Society of Women Engineers High School Outreach Committee, Women in Computing at Cornell
- GirlsGo Cyber Start 2018 First Place (PHS Iliad), Mali Rising: Make the Case for Caring Essay Contest 2017 Finalist, American Youth Philharmonic violinist 2015 – 2018