

# Katie Bradford

Electrical Engineering Undergraduate

## EXPERIENCE

FALL 2016 - PRESENT

### **CUAir: Cornell University Unmanned Aerial Systems (cuair.org)**

*Electrical Subteam Lead*

Worked on interdisciplinary team of engineers to design, build, and test unmanned aerial system to compete in search and rescue competition

Designed custom PCBs for catapult control and power regulation

Integrated all bay electronics with carrier board system unifying power, communication, and break-out between modules

SUMMER 2018

### **Shaper Tools**

*Electrical Engineering Intern*

Designed and manufactured electromechanical test fixtures for factory testing, decreasing yield loss and complexity

Defined system architecture and designed development platform for confidential products

SUMMER 2016, SUMMER 2017

### **MITRE Institute, FFRDC**

*Software Engineering Intern*

Reverse engineered CAN bus communication to mitigate risks involving malicious vehicle hacking

Developed Android app to monitor motion and location to assess safety threats

Created tool to extract and index geospatial metadata from aerial imagery to create coverage maps

Developed front end web tool to annotate images for computer vision research

SUMMER 2015

### **Northeastern University**

*Research Intern*

Ran experiments with visual, matrix-based Brain Computer Interfaces

Assisted in academic paper providing evidence in support of deterministic modeling for matrix sequencing

SUMMER 2014

### **Resin Designs**

*Electrical Engineering Intern*

Designed and tested system with Arduinos to monitor lab experiments for chemical engineering research and development lab

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## EDUCATION

### **Cornell University - Ithaca NY**

B.S Electrical and Computer Engineering

Spring 2020 - GPA 3.67

Dean's List all semesters

### **Relevant Coursework**

Analog Integrated Circuit Design

Microcontrollers

Microelectronics

Digital Logic and Computer Organization

Signals and Systems

## EXTRACURRICULARS

FALL 2016 - PRESENT

### **Cornell Rapid Prototyping Lab**

*Lab Technician*

Assisted research groups and project teams with design and manufacturing

Operated and debugged prototyping machinery; 3D printers, laser cutter, CNC router

### **Cornell Commitment**

*Tradition Fellow*

Scholarship program for community service, campus activity, and work study

### **Cornell Concert Commission**

*Stage Crew Head*

Organizing group of student stage crew hands, building and breaking down sets for concerts

## SKILLS

**CAD** Altium, Solidworks, Fusion 360

**SOFTWARE** Python, Matlab, JavaScript, Arduino, LaTeX

**OTHER** Soldering, 3D printing, laser cutting, technical writing, Microsoft Office Suite