Katie Bradford

Electrical Engineering Undergraduate

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Experience

Fall 2016 - Present

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

Electrical Subteam

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 Institude, 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

Education

Cornell University - Ithaca NY

B.S Electrical and Computer Engineering

Spring 2020 - GPA 3.72

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

Kessler Fellow

Kessler Fellows Program

Engineering entrepreneurship focused program for Cornell Engineering juinors to explore the world of startups

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