

JACKSON SPEED KOPITZ

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📍 Manhattan Beach, CA

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📍 Ithaca, NY

🌐 <https://jacksonkopitz.github.io/website/>

EDUCATION

MEng in Systems Engineering

Cornell University, College of Engineering

📅 Expected Dec 2020 📍 Ithaca, NY

- GPA: 3.8, Software Systems Specialization
- *Current Enrollment:* Algorithms, Machine Learning, Project Management, Entrepreneurship for Engineers
- *Relevant coursework:* Computer Vision, Model Based Systems Engineering, Systems Analysis Behavior & Optimization

BS in Electrical and Computer Engineering

Cornell University, College of Engineering

📅 May 2020 📍 Ithaca, NY

- GPA: 3.5, Computer Science Minor
- *Relevant coursework:* Computer Architecture, Embedded Systems, Digital Logic & Computer Organization, Object-Oriented Programming & Data Structures, Operating Systems, Functional Programming, Probability & Inference for Random Signals & Systems, Discrete Math, Circuits

PROJECTS

Pedestrian Wayfinding in Downtown Ithaca

📅 January 2020 – Present

- Designing a wayfinding system in Downtown Ithaca to increase resident and visitor foot traffic and decrease carbon emissions

AirBass

📅 August – December 2019

- Created an air bass guitar that allows users to play distinct notes by imitating the finger movement of a real bass guitar player
- Wrote a C program that read information from beam break sensors, flex sensors, and an ultrasonic distance sensor to play notes

Tree Irrigation System

📅 January – May 2019

- Designed and built a system with a Raspberry Pi to maintain ideal water pressure in a tree's transport system
- Calculated how much water to deliver to the tree by using weather forecast data and tree water pressure

Autonomous Mapping Robot

📅 August – December 2018

- Fabricated a robot that could navigate a maze using a DFS and Dijkstra's Algorithm, transmit current robot and surrounding wall locations to a GUI, identify shapes and colors, and detect audio and infrared signals

SKILLS & INTERESTS

Programming Languages

- Python, OCaml, Java, C, HTML, CSS, JavaScript

Technical Skills

- Vitech CORE, SysML, PCB Design, Eagle, Git, Soldering, Composites, SolidWorks, 3D Printing, LaTeX, Microsoft Office

Interests

- Sustainability, Camping, Squash, Music, Hebrew, French, German, Yiddish, Skiing, Traveling, Water Polo, Swimming, Sailing, Dogs

EXPERIENCE

Systems Engineering Intern

Outrider

📅 June – August 2020 📍 Golden, CO

- Developed system functionality and architecture by creating System Design Documents (SDDs) and collaborating with engineering and product teams
- Established processes using CORE for how the Outrider system responds to yard services
- Founded the Outrider Green Team and led company-wide sustainability initiatives

Full Team Lead

CUSail - Cornell Autonomous Sailboat Team

📅 Aug 2016 – June 2020 📍 Ithaca, NY

- Led an engineering project team of 30 undergraduates to design and manufacture an autonomous robotic sailboat
- Designed the deck of the sailboat using CAD, manufactured the components with carbon fiber, and implemented a waterproofing system to keep the internal electronics dry

Systems Engineering Team Member

Cornell University Sustainable Design

📅 Aug 2019 – Present 📍 Ithaca, NY

- Optimizing and redesigning the City of Ithaca parking garage system using Systems Design Thinking and Systems Engineering modeling tools to reduce emissions associated with excess driving in search of parking.

Electrical Engineering Intern

Northrop Grumman Corporation

📅 June – Aug 2018 📍 Redondo Beach, CA

- Performed manual & automated calibrations on measurement & test equipment such as oscilloscopes, power supplies, & digital multimeters

Introduction to Computing Course

Consultant

Cornell Computing and Information Science

📅 Aug – Dec 2017 📍 Ithaca, NY

- Held office hours, led recitation, graded assignments and exams

Student Supervisor

The Cornell Store

📅 2016 – 2020 📍 Ithaca, NY

ACTIVITIES

Cornell Vegan Society

Cornell University Big Red Bands

Blue Stars Drum and Bugle Corps

Pacific Crest Drum and Bugle Corps