JACKSON SPEED KOPITZ

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📍 808 Duncan Avenue, Manhattan Beach, CA 90266   📍 208 Dryden Road, Apt 500, Ithaca, NY 14850

EDUCATION

MEng in Systems Engineering
Cornell University College of Engineering

📅 Expected December 2020   📍 Ithaca, NY

- *Relevant coursework:* Computer Vision, Design Thinking for Complex Systems, Model Based Systems Engineering, Systems Analysis Behavior and Optimization

BS in Electrical and Computer Engineering
Cornell University College of Engineering

📅 Expected May 2020   📍 Ithaca, NY

- GPA: 3.4 | Dean's List: Fall 2018, Fall 2019
- *Relevant coursework:* Functional Programming, Computer Architecture, Digital System Design Using Microcontrollers, Discrete Math, Operating Systems, Embedded Systems, Digital Logic & Computer Organization, Object-Oriented Programming & Data Structures

EXPERIENCE

Full Team Lead
CUSail - Cornell Autonomous Sailboat Team

📅 August 2016 – Present   📍 Ithaca, NY

- Leads an engineering project team of 30 undergraduates, runs meetings, handles logistics, works with Cornell administration
- Rebranded the team and established protocols for sponsorships, publicity, and recruitment as Business Lead (2018-19)
- Designed the deck of the sailboat using CAD, manufactured the components with carbon fiber, implemented a waterproofing system to keep the internal electronics dry (2016-18)

Systems Engineering Team Member
Cornell University Sustainable Design

📅 August 2019 – Present   📍 Ithaca, NY

- Optimizes and redesigns the City of Ithaca parking garage system using Systems Design Thinking and Systems Engineering tools to reduce emissions associated with searching for parking.

Electrical Engineering Intern
Northrop Grumman Corporation

📅 June – August 2018   📍 Redondo Beach, CA

- Performed manual & automated calibrations & compared the benefits of each for measurement & test equipment including oscilloscopes, power supplies, & digital multi-meters

Introduction to Computing in Python Consultant
Cornell Computing and Information Science

📅 August – December 2017   📍 Ithaca, NY

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

Student Supervisor
The Cornell Store

📅 November 2016 – Present   📍 Ithaca, NY

- Acts as communication bridge between student & management staff, operates register, manages merchandise

PROJECTS

Pedestrian Wayfinding in Downtown Ithaca
📅 January 2020 – Present

- Designs a wayfinding system in Downtown Ithaca to increase both resident and visitor walking and to lower 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

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
- Used weather forecast data and tree water pressure to determine how much water to deliver to the tree

Autonomous Mapping Robot
📅 August – December 2018

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

SKILLS & INTERESTS

Programming Languages
- Python, Java, OCaml, C, HTML, CSS, JavaScript, Verilog

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

Interests
- Sustainability, Squash, Hebrew, French, Skiing, Traveling, Water Polo, Swimming, Sailing, Dogs

ACTIVITIES

Cornell Vegan Society
📅 Aug 2019 – Present   📍 Ithaca, NY

Big Red Bands, Cornell University
📅 Aug 2016 – Present   📍 Ithaca, NY

Blue Stars Drum and Bugle Corps
📅 May – Aug 2019   📍 La Crosse, WI

Pacific Crest Drum and Bugle Corps
📅 Jan 2016 – Aug 2017   📍 Diamond Bar, CA