

Jackson Speed Kopitz

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School Address:
208 Dryden Road, Apt 500
Ithaca, NY 14850

EDUCATION

Cornell University, College of Engineering, Ithaca, NY

Master of Engineering in Systems Engineering

Expected Dec 2020

Bachelor of Science in Electrical and Computer Engineering, Minor in Computer Science

Expected May 2020

GPA: 3.3 | Dean's List

Relevant Coursework: Model Based Systems Engineering, Digital System Design Using Microcontrollers, Web Design, Computer Architecture, Operating Systems, Design with Embedded Operating Systems, Embedded Systems, Probability & Inference for Random Signals & Systems, Signals & Systems, Digital Logic, Object-Oriented Programming & Data Structures, Circuits, Microelectronics

PROJECTS

Tree Irrigation System, Applied Skills: Python, Real-time Programming, I/O

Jan – 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, Applied Skills: C, Arduino, Analog Circuitry, FPGA, PCB Design

Aug – Dec 2018

- Designed and 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

Quadcore Processor System, Applied Skills: Processor, Memory, and Network Design, Verilog

Aug – Dec 2018

- Implemented and integrated a quadcore processor with four processor cores, four instruction caches, a data cache with four banks, and multiple four-port networks to connect the different subsystems of the design

RELEVANT EXPERIENCE

CUSail – Cornell Autonomous Sailboat Team, Ithaca, NY, *Full Team Lead*

Aug 2016 – Present

- Leads an engineering project team of 25 undergraduates that annually develops an inexpensive, mass-producible, and fully autonomous robotic sailboat for competition and research purposes
- Runs all meetings, handles logistics, leads recruitment, works with Cornell Engineering administration
- Redesigned the deck and hull of the sailboat using CAD, manufactured the components with carbon fiber and Fiberglass, designed and implemented a waterproofing system to keep the internal electronics dry

Northrop Grumman Corporation, Redondo Beach, CA, *Electrical Engineering Intern*

June – Aug 2018

- Performed manual and automated calibrations and compared the benefits of each for measurement and test equipment including oscilloscopes, power supplies, and digital multimeters
- Calibrated several AC/DC standard references with metrology engineers
- Performed virus scans, sanitization and imaging on DC/LF and Radio Frequency measurement and test equipment

Cornell Computing and Information Science, Cornell University, Ithaca, NY, *Consultant*

Aug – Dec 2017

- Held weekly office hours, helped students during recitation sections, graded assignments and exams

The Cornell Store, Cornell University, Ithaca, NY, *Student Supervisor*

Nov 2016 – Present

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

EXTRACURRICULARS

Big Red Bands, Cornell University, Ithaca, NY, *Pep Band Treasurer*

Aug 2016 – Present

Blue Stars Drum and Bugle Corps, La Crosse, WI, *Baritone*

May – Aug 2019

Pacific Crest Drum and Bugle Corps, Diamond Bar, CA, *Euphonium*

Jan 2016 – Aug 2017

SKILLS AND INTERESTS

Technical Skills: Python, Java, C, RISC V, ARM, Verilog, Bash, Arduino, PCB Design, Eagle, Git, Soldering, HTML, CSS, JavaScript, Composites, SolidWorks, 3D Printing, LaTeX, Microsoft Office

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