Jackson Speed Kopitz

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EDUCATION

Cornell University, College of Engineering, Ithaca, NY   **Expected May 2020**
Bachelor of Science in Electrical and Computer Engineering, Minor in Computer Science
GPA: 3.3 | Dean's List: Fall 2018

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
- Led a team of 4 interns and collaborated with engineers and managers to develop a poster and presentation explaining the workflow within the Engineering Asset Management Department at the Northrop Grumman Explore Aerospace Poster Competition

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, Composites, SolidWorks, 3D Printing, LaTeX, Microsoft Office
Interests: Squash, Sustainability, Hebrew, French, Traveling, Skiing, Water Polo, Swimming, Sailing, Dogs