

ALEXANDER HOPPE

✉ ahoppe@olin.edu 🌐 alexanderehoppe.com ☎ (206) 310 8108 📍 Olin College of Engineering c/o 2019
in /in/aehoppe 🔗 aehoppe

SUMMARY

I'm an Electrical and Computer Engineering student graduating with my bachelor's from Olin College in May 2019, excited about hardware and firmware development for aerospace, electric vehicles and consumer electronics. I love bringing systems and interactions to life with embedded electronics.

EMPLOYMENT

May 2018 to Aug. 2018	SpaceX · Avionics Intern <ul style="list-style-type: none">- Designed, prototyped and tested a new design for an ARM-embedded, CAN-enabled interface PCB for a new sensing technology- Developed functional prototype firmware in C++ and test software in python- Collaborated with mechanical engineers for system integration and flight-like design
Sept. 2015 to Current	Olin Electric Motorsports · Electrical Team Lead, Senior Electrical Engineer <ul style="list-style-type: none">- Successfully led electrical system design through passing tech and racing at Formula SAE Electric 2017- Designing, fabricating and testing custom CAN-networked AVR-core embedded systems PCBs- Writing and implementing training, educational, and onboarding documents and sessions- Collaborating on both high power and digital electrical system architectures- Supporting third-iteration custom BMS design and accumulator integration
May 2017 to Aug. 2017	Synapse Product Development, Inc. · Electrical Engineer <ul style="list-style-type: none">- Developed validation testing and lab skills while reducing product power consumption- Designed cost-down steps for mass-production- Worked with and presented to clients
May 2016 to Aug. 2016	Onshape · Software Development Intern (Assemblies) <ul style="list-style-type: none">- Worked on the full production stack in C++, Java and JavaScript- Implemented client-facing features such as Parallel mate- Fixed priority bugs on both client and server applications

SKILLS

ELECTRICAL	Circuit Prototyping, PCB Design, Embedded Systems Design, Altium Designer, Upverter, Atmel AVR, Circuit Debugging (Oscilloscope, Function Generator, DMM, Spectrum Analyzer), LTSPICE, Altium, KiCAD, HV Systems Integration, Verilog
SOFTWARE/FIRMWARE	Python, Git, Test Driven Development, Java, C++, MATLAB, C, HTML & CSS, Flask
MECHANICAL	Onshape, SolidWorks, CNC Router, Mill
MANAGEMENT/WORKFLOW	JIRA, Asana, Trello

PROJECTS

Mar. 2018 to May 2018	BombSquad - Elecanisms 2018 <p>A real-life, modular implementation of the popular VR game Keep Talking and Nobody Explodes, running on 7 PIC24FJ MCUs connected with I2C.</p>
Nov. 2017 to Dec. 2017	8-bit MIPS CPU <p>An 8-bit RISC CPU written in Verilog that used a reduced subset of the MIPS ISA for Computer Architecture Fall 2017 at Olin.</p>
Sept. 2016 to Current	Third Wave Coffee <p>I'm a self-taught barista and proprietor of a modern-style coffee shop I run in my dorm at Olin.</p>
Sept. 2017 to Current	ARM Cortex M7 Data Logger <p>Custom revision 0 PCB design for an ATSAME70N19 Cortex M7 microcontroller.</p>
Jan. 2017 to Apr. 2017	Mysealium <p>A conceptual art-sharing ecosystem for museum curators developed in User Oriented Collaborative Design 2017</p>
Oct. 2016 to Dec. 2016	ReFilament <p>A 3D-printing filament recycling system built as the final project for Principles of Engineering</p>
Jan. 2016 to May 2016	Morse Code Internet in a Box <p>A fully student-designed and built seven-layer OSI model of the internet based on Morse code communication</p>
Dec. 2015	Listening With Lasers <p>An apparatus to record sounds from outside a window using a laser, a photodiode, a filter circuit and Digilent WaveForms software</p>
Oct. 2015	The O Watch <p>An internet-connected LED watch using the Spark Core that won Best Wearable at HackHolyoke 2015</p>