

vaughn@kottler:~\$ cat ./resume.txt

Full-Stack Electronics Engineer, Workflow and Test Infrastructure

Education: **B.S. - Computer Engineering** (UW-Madison, Fall 2018) *GPA: 3.43*
- Majors: Computer Engineering, Computer Science, Dean's List 4/9 Terms

Work: **Amazon Robotics** (Firmware Engineer, SDE I) *Feb. 2019 - Present*
- RTOS ([Micrium uCOS-II](#)) system integration & performance profiling
- [IEC 61508](#) & [IEC 61784](#) compliant product development ([SIL-2](#))
- Componentization and build-system evolutions for the source-asset ecosystem

SpaceX (Software Engineering Intern) *Fall 2017, Summer 2018*
- Responsive user interfaces (web stack) for next generation ground systems
- LabVIEW automation & continuous integration distributed as a Python package

Extreme Engineering Solutions (Associate Embedded Engineer) *Spring - Fall 2017*
- Bootloader development for non-Intel architecture systems ([U-Boot](#))

State Farm (Software Development Intern) *Summer 2016*
- Web app. with Spring Framework + Maven & Angular.js 1.X, first TDD experience

Skills (CE): **Schematic Design & PCB Layout, Processor Driver/Firmware Development, Verilog:**
- Configuring [GNU make](#), [Bazel](#) and custom build systems, acclimating to large codebases
- Altium & KiCad schematic and PCB layout experience, some Spice simulation exp.

Hardware Communication Protocols: *U[S]ART, I2C, CAN, SPI, USB, Ethernet, PCIe*
- Non-blocking I/O & RTOS, CANopen & custom application layer protocol experience

Hardware-Level Software Debugging: *Logic Analyzers, Oscilloscopes, Multimeters*
- Proficient with debugging tools, aware of when to use (and how to not break them!)

Skills (CS): **Web Development (Full Stack):** *Performant and Reliable | CI + DevOps Automation*
- Frameworks: Polymer, Angular [+Material Design], Bootstrap, none / from scratch
- Java EE, JavaScript/Node.js, PHP, SQL, HTML5 & CSS3, Go, Python

DBMS & System Administration: *Gentoo, Ubuntu, CentOS/RHEL, [De|Rasp]bian*
- Vagrant, Ansible, Docker & Bash script automation, mailing configs
- Apache/NGINX configs (mult. vhosts), DNS with SSL administration

Programming: *Prefer C/C++, Python, Java | Vim+tmux @ 100% duty cycle ([.vimrc](#))*
- Avoiding concurrency pitfalls, custom HALs and drivers, coherent architectures
- Multi-platform software ecosystems, GDB-style debugging, efficient workflows (git)

Certificates: **exida Functional Safety Practitioner (FSP):** *FSE 211/212, Safety Development*
- 24 professional-development hours / 2.4 continuing-education units

Involvement: **Badgerloop | Software Development Club:** *Building real products*
- (Former) Electrical Tech Director, Software & Controls Lead | Technology Chair

Awards: Badgerloop - Innovation Award (x2), Design Weekend 3rd Place
UW Madison - Intro to IoT Hackathon - First
HackIllinois - Best Use of Intel's Microcontrollers - Third
JP Morgan Chase Code for Good - Best overall commit
HuskieHack - CDK Evolution Award, Beyond the Assembly Line
WildHacks - Watchdogs 2 Device Security Award (MLH Sponsored)

