Cell: (608) 381-1145 | **Email:** vaughnkottler@gmail.com | **Website:** vkottler.github.io | **GitHub:** www.github.com/vkottler

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:
SpaceX (Avionics Software Engineer II) *July 2020 – Present*
— Support Falcon production and launch, improve software release cadence
— New hardware-simulation architecture for launch-vehicle, pre-flight testing
Amazon Robotics (Firmware Engineer, SDE I) *Feb. 2019 – July 2020*
— 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)

Skills (CE):
Schematic Design & PCB Layout, Processor Driver/Firmware Development:
— 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*
— 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 Practicioner (FSP): *FSE 211/212, Safety Development*
— 24 professional-development hours / 2.4 continuing-education units

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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)