Wesley Aptekar–Cassels

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Google (January 2018-present)
- Fuchsia Netstack (July 2018-present)
  - Wrote eventloop, ARP handling code, ICMPv4 parsing, and timer framework in Rust for the Fuchsia networking stack
  - Implemented support for socket control plane in our Rust async libraries
  - Designed and implemented hostname lookup API
  - Worked to define standards for the Fuchsia connectivity configuration system
- Developer Infrastructure SRE (Jan-Dec 2018)
  - Oncall for automated testing, test log collection, and bug tracking infrastructure.
  - Simplified database schema and saved hundreds of TB of flash storage by analyzing data access patterns
  - Consulted with Cloud teams to provide guidance on monitoring, alerting, capacity planning, etc. before launches

Recurse Center (July-November 2017)
- Implemented a simple x86 operating system in Rust, featuring a keyboard driver, serial driver, VGA driver, and page allocator
- Researched correctness properties of filesystems in presence of block-device level errors.
- Designed, built and programmed a robot, using a custom parametric CAD system and PID controller
- Implemented the Raft consensus protocol
- Wrote a program to use computer vision to play the card game Set
- Wrote a raytracer in Rust

Foodfully (Internship, 2015-2016)
- Worked with electrical and mechanical engineers to support design and development of an internet-connected smart device
- Wrote firmware in C and server code in Javascript to support a fleet of experimental devices

Citrus Circuits Robotics Team (2014-2017)
- Created embedded software to control mobile robots, winning world championship robotics competition
- Created C++ framework used to develop new robot code, saving time by abstracting away much of our standard boilerplate
- Implemented logging system to automatically log all messages passed through the code
- Implemented web dashboard to change settings and view live sensor data
- Implemented automatic detection and adaption of sensor failure
- Implemented unit testing and code review as standard process, allowing us to finish the majority the software before we had hardware to run it on
- Created systems of applications to collect data on other competing robots

Speaking:
- StarCon 2019, "Ping at the speed of light"
- !!Con west 2019 - "Robots, Rockets, and more! Control theory in 10 minutes"