

# Wesley Aptekar-Cassels

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## SKILLS

C++

Python

Robotics

Web Development

## EXPERIENCE

### Citrus Circuits Robotics Team, Programmer

Davis, CA — 2014-2017

- Created embedded software to control mobile robots
- Worked to implement unit testing and code review as standard process
- Created systems of applications to collect data on other competing robots

### Foodfully, Embedded Software Intern

Davis, CA — 2015-2016

- Worked with electrical and mechanical engineers to support design and development of a internet-connected smart device
- Wrote firmware and server code to support a fleet of experimental devices.

### Recurse Center

New York, NY — July-September 2017 (anticipated)

- Implemented a simple operating system
- Learned low-level details of how computers work

## PROJECTS

### Citrus Circuits Robot Code ([github.com/frc1678/robot-code-public](https://github.com/frc1678/robot-code-public))

I worked to create the framework that we used to develop new robot code, saving time by abstracting away much of the boilerplate code that we had. I also implemented unit testing for the first time on our team, allowing us to finish the majority the software before we have hardware to run it on.

Subprojects that I lead include:

- A logging system to automatically log all messages passed through the code
- A web dashboard to change settings and view live sensor data
- Automatic detection and adaption of sensor failure

### Foodfully Embedded Firmware + Server

I wrote firmware for an internet connected smart device in C, along with a server in Node.js to aggregate data from multiple devices. I worked closely with the hardware team to ensure that the device would be capable of meeting the software requirements.

### Citrus Parts - Inventory Management Tool

I was the lead programmer on Citrus Parts - a web app written in Ruby and Sinatra to keep track of the inventory of materials in a machine shop. It integrated with SolidWorks PDM to find the amount of materials needed and provide easy access to part drawings.