# Michael Pratt

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OBJECTIVE

To expand my knowledge of embedded and operating systems through internship experience.

Relevant Experience Google, Mountain View, California

Software Engineering Intern, Google Chrome OS

May - August 2013

- Developed support to boot an ARM device from embedded MMC
- Ensured eMMC boot met the Chrome OS boot security requirements
- Worked primarily on the U-Boot bootloader and Chrome OS Verified Boot
- Interfaced with ARM SoC peripherals and the Linux kernel
- Learned to work on a fast-moving project with several other developers

## Aerial Robotics Club, North Carolina State University Student Organization

Payload Team Lead

August 2012 – present

Member

August 2011 – present

- Develop and maintain hardware and software solutions for unmanned aerial systems
- Synthesize subsystems into a complete, autonomous, unmanned aerial system
- Built interface libraries to machine vision cameras and an autopilot with the Python C API
- Designed and implemented aerial imaging pipeline, from image capture aboard the aircraft to target recognition and permanent image storage on the ground
- 2013 team at AUVSI Student UAS competition took home 2nd place overall out of 35 teams

## F4OS, Personal Project

github.com/prattmic/F4OS

May 2012 - present

- Real-time operating system supporting several ARM Cortex-M4 microcontrollers
- Soft real-time scheduling using a preemptive rate-monotonic scheduler
- Modular memory management sybsystem, with multiple memory management schemes
- Flexible object framework allows typed resources to define unique operations

OTHER EXPERIENCE

#### Orange County Schools, Hillsborough, North Carolina

Information Technology Intern

January – June 2011

- Maintained and repaired school computers and network
- Assisted in initial implementation of computer ghosting system
- Worked independently to solve IT problems

#### Boy Scouts of America, Durham, North Carolina

Senior Patrol Leader

January 2010 – January 2011

Eagle Scout Award

October 2010

- As Senior Patrol Leader, led troop meetings, activities, and leadership council
- For Eagle Scout project, designed and led project to improve an elementary school nature trail

Programming Software C, Python, ARM Assembly, Go, Bash

Linux, Git, GDB, Make, Altium Designer, CADsoft Eagle, LATEX, HTML

EDUCATION

### North Carolina State University, Raleigh, North Carolina

B.Sc. Computer and Electrical Engineering

August 2011 – December 2014

- Current GPA: 4.00/4.00
- Courses include: Elements of Controls, Microelectronics, Introduction to Embedded Systems, Discrete Control Systems (Grad), Compiler Optimization and Scheduling

Honors and Awards Dean's List, North Carolina State University, Fall 2011 through Fall 2013

Goodnight Scholarship, North Carolina State University, 2011

People Helping People Scholarship, NC State Employees' Credit Union, 2011

Eagle Scout Award, Boy Scouts of America, 2010