# Tobias J. Schneider

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#### **OBJECTIVE**

I am a junior at VCU studying computer science, seeking an internship for Summer 2018. My expected graduation date is May 2019. I am primarily interested in web development, data science/machine learning, and cyber security.

### TECHNOLOGY

Languages: Python, Java, C/C++, HTML/CSS/JavaScript, SQL, R, Go Tools & Libraries: vi/vim, Bash, Git, SSH, GCC, GDB, Eclipse, IntelliJ/Android Studio, Angular.js, Node.js, Apache HTTP Server, MySQL, OpenCV, Amazon EC2 Operating Systems: Linux (Arch, Ubuntu/Debian/Kali), Windows, macOS

### **PROJECTS**

Operating System Simulator

Fall 2017

Worked on a team of 3 to build an OS simulator in C++/Python. We implemented fundamental OS concepts such as CPU scheduling, virtual memory, and multiprocessing in a 2.5k LOC program. I specifically worked on memory allocation/management, including virtual memory.

 $Algorithm\ Implementations$ 

- Implemented sorting, searching, and graph algorithms; adapted them to fit given specifications and performance requirements
- Analyzed their time complexity, compared performance of various implementation methods/representations

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Built at Bitcamp Spring 2016

Worked on a team to build a "seeing eye" robot (Raspberry Pi/Roomba/Foscam camera) that follows the user, tells them to stop upon detecting a nearby object, snaps a picture and uses the CloudSight image recognition API to determine what the object is. It then dictates a description to the user using text to speech.

• Integrated OpenCV (computer vision library) in Python to detect the user's position by detecting their feet from camera input

## **EDUCATION**

B.S. - Computer Science (graduating May 2019)

August 2015 - present

Minor in Mathematics

Virginia Commonwealth University, Richmond, VA

Relevant coursework:

- Cyber Security (CMSC 413)
- Algorithm Analysis and Advanced Data Structures (CMSC 401)
- Programming Languages (CMSC 403)
- Operating Systems (CMSC 312)

#### **AWARDS**

Mid-Atlantic Collegiate Cyber Defense Competition (MACCDC) Spring 2018

- Performed Linux web server administration, hardening, and firewall management (iptables/ufw)
- As part of the VCU team, qualified for regional finals (only top 8 schools out of 33 qualified)
- Worked under pressure to defend several web servers from professional penetration testers