

## **CHRISTOPHER ROSENGRANT**

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### **EDUCATION**

**Virginia Tech.....Graduated May 2018**

B.S. Department of Computer Engineering

3.1 GPA (Overall).....3.1 GPA (In major)

### **EMPLOYMENT**

**Intern; Booz Allen Hamilton, Aberdeen, Maryland..... Summer 2017**

- Created a personal assistant application for the U.S. Army
- Integrated Army data sets to create meaningful conclusions
- Operated with a cross-national team of Booz Allen employees

**Intern; Intific, Austin, Texas.....Summer 2016**

- Collected data from Twitter and Twitch
- Conducted Sentiment analysis of data collected for contract projects for Amazon and DARPA
- Contributed to the popular Cheer Twitch feature

### **RELATED PROJECTS**

#### **RF Spectrum Signal Recognition:**

- Used Convolutional Neural Networks to identify FM, LTE, and DMR signals at 85% accuracy
- Captured in real time with a RF recording system using python scripting

#### **Autonomous Rover:**

- Programmed in C code on microchip boards with the tasking handled by FreeRTOS
- Implemented communication between rovers using a python web server and a NGINX proxy

#### **Music Synthesizer:**

- Parsed a Midi file in real time in order to generate a Wav file to play through a QT GUI
- Written in C++ utilizing thread safe implementation and QT graphical interface

#### **HW/SW Optimized GPS Signal Analyzer:**

- Wrote hardware modules to decrease the number of clock cycles in a software implementation
- Ran on an ARM processor on an FPGA with Verilog modules and C code using semaphores

#### **Avatar Personal Ontology:**

- Provided an alternative to an SQL database in order to solve the problem of unstructured data
- Expanded upon an ontology through use cases, the react library, and various APIs

#### **Twitch Cheer:**

- Worked on the user interface for the Twitch Cheer feature before its initial rollout
- Used Swift to create environments for users to complete transactions in during a live stream

#### **Smart Gym:**

- Networked four Raspberry Pis together with RFID sensors to simulate a gym
- Created a flask homepage with a Mondo DB server and RabbitMQ messaging

### **COMMUNITY SERVICE**

**IEEE Industry Liaison; Blacksburg, Virginia.....Fall 2017 – Spring 2018**

- Learned how to maintain fruitful relations with many high profile companies

**Kindergarten to College; Volunteer, Blacksburg, Virginia.....Spring 2016**

- Coordinated tours of the Virginia Tech Campus

**Physics Outreach; Volunteer, Blacksburg, Virginia.....Fall 2014-Spring 2017**

- Created lesson plans and understood how to create a presentation

### **SKILLS**

- |                    |               |          |
|--------------------|---------------|----------|
| • Verilog          | • C++         | • C      |
| • Embedded Systems | • Assembly    | • Python |
| • JavaScript       | • React/Redux | • GO     |