**James Graham Haynie**

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# **Education**

**Virginia Polytechnic Institute and State University,** Blacksburg, VAGraduated May 2020

* B.S. in Computer Engineering, Networking and Cybersecurity Track
* Computer Science Minor
* 3.32 GPA

# **Skills**

**Technical Skills/Concepts:** API Programming, Multi-threading, Event-driven Programming, Data Structure Design, GUI Design/Implementation, Network Application Design, Circuit Analysis, Design, and Debugging, Microcontroller Interfacing, Networking, DevOps, Database management

**Software:** C++, C, Python, Java, JavaScript, Git, Ansible, Elastic Stack, Vagrant, Bash, VirtualBox, Assembly, MATLAB, Autodesk Inventor, LTspice, Qt, Processing, React, MQTT

**Operating Systems:** Windows, Linux (Centos, Ubuntu, Raspbian, Kali, Fedora)

**Hardware:** Raspberry Pi, Arduino, TI Launchpad (MSP432), TI Launchpad (CC3200SF), DE0 Nano FPGA

# **Work Experience**

**CACI, Intern**, Sterling, VA Summer 2019

* Created DevOps monitoring system for a radio command and control network using

the Elastic Stack to actively and passively collect metrics to monitor system performance.

* Collaborated with a small team using Git and Developed in a Linux environment.

**CACI,** **Junior Software Engineer**, Sterling, VA August 2020 - Present

* Responsible for development of a React-based web application to drag and drop

state machines from a database through a Graphical User Interface. Responsibilities

included fixing existing features and adding new features on both front and back end,

utilizing a React front end in conjunction with a Python back end.

* Managed versions using Git, with approval for version changes from superiors. Developed

in a Linux environment.

# **Projects**

**ECE 4534, Embedded System Design,** Blacksburg, VA Spring 2020

* Worked in small team, using Git, to develop a block stacking rover consisting of Independent component systems meeting specific constraints. Created sensor array to gather information

about area around the rover, relative to the rover, and publish data using MQTT.

**ECE 4524, Artificial Intelligence and Engineering Applications,** Blacksburg, VA Spring 2019

* Developed algorithms using Python to perform game-playing adversarial and heuristic

search in PAC-MAN and other environments.

**ECE 4564, Network Application Design,** Blacksburg, VAFall 2019

* Designed and developed network applications for Internet of Things (IoT) applications using

the Raspberry Pi hardware platform and the Python language.

**ECE 3574, Applied Software Design,** Blacksburg, VA Spring 2018

* Developed MIPS instruction set architecture simulator and GUI using API specifications,

multi-threading, and event-driven programming.

* Designed, implemented, and performed integration testing.

**Virginia Tech Cybersecurity Club**, Blacksburg, VA

* picoCTF Cybersecurity Competition Fall 2018
* TAMUctf Cybersecurity Competition Spring 2019

# **Leadership**

**Eagle Scout Project,** Charlottesville, VA 2013 - 2014

* Designed and built the Eagle Scout Trail: a 0.44 mile uphill switchback trail for the

Saunders-Monticello Trails.

* Lead volunteers for a total of 212 man hours**.**

References furnished upon request