

Eric Paulz

U.S Citizen

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<https://epaulz.github.io>

Summary

I am a research engineer with a software background currently in a role at The Hume Center for National Security and Technology at Virginia Tech. Prior to this role I was pursuing a B.S. in Computer Science at Clemson University, which I acquired in 2018. During my time at Clemson I gained experience in an advanced R&D lab with BMW Group in Greenville, SC. My primary focus in both roles has been designing and implementing software solutions for projects in the realm of embedded systems engineering and data processing/analysis. In my current role I have also worked closely with custom military-grade wireless communications systems, software-defined radios and FPGAs.

Education

B.S. Computer Science, Clemson University

December 2018

Employment

Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg VA

Computer Engineer, Hume Center for National Security and Technology

1/2019 - present

The Hume Center's primary mission is workforce development for the DoD and IC. We have a research portfolio covering a wide range of topics and technologies in the cybersecurity space. My role is to bring software engineering skills to the table when necessary to complete programs, and I have branched into the business development space by generating my own ideas and writing research proposals. My primary focuses in this role have been in embedded systems engineering and data processing techniques.

BMW Group, Greenville SC

IT Innovations and Research Intern, innovation[LAB]

5/2018 – 8/2018

This advanced R&D lab located at BMW's data center focuses on leveraging cutting edge technologies to improve various processes within the production plant as well as vehicle sales strategies across the country. In this position I took on a data science role, performing data analysis tasks to give management a better idea of customer sentiment and historical trends. I also contributed to an ongoing embedded systems project with the goal of standing up a predictive maintenance infrastructure within the production plant.

BMW Manufacturing, Greer SC

Material Control Intern, Plant Spartanburg (TS-121)

5/2017 – 8/2017

Material control is the process of getting raw materials and parts from suppliers to the assembly line. BMW maintains a JIT/JIS methodology (just-in-time/just-in-sequence) to minimize on-site storage requirements, so precise timing is critical. My role here was writing Python scripts and Excel macros to help controllers perform daily tasks more quickly and efficiently. I also developed a live map application which gave controllers a visual, interactive tool allowing them to plan routes or adapt to adversity more easily than their previous methods.

Skills

Software	Python, C, Git, Make, Qt, REST, Bash, documentation, MATLAB
Data Science / Machine Learning	Pandas, Numpy, Jupyter, pyTorch, fastai
Embedded / Wireless	RedhawkSDR, GNURadio, eMANE, cross-compilation, custom MAC development
OS	Ubuntu, CentOS, Windows
Networking	Understanding of full network stack, Unix sockets, iPerf, MGEN, Wireshark
Research	Literature review, technical writing, LaTeX