

Chandler L. Cain

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EDUCATION

M.S. Computer Engineering, Virginia Tech (2020)
Area of focus: Networks and Cybersecurity

B.S. Computer Engineering, Virginia Tech (2018)
Minor in Computer Science

SKILLS

Specializations: DevOps, Agile Software Development, Cloud Architecture, CI/CD, Linux

Programming Languages: Python, Java, C/C++, Bash, Ruby, JavaScript, HTML/CSS

Certifications: AWS Solutions Architect – Associate (2021)

PROFESSIONAL EXPERIENCE

SENSE Computer Systems Engineer – Level II at Peraton (January 2021 – Present)

- Supported a software development team at NASA Goddard Space Flight Center as the lead systems engineer focused on developing CI/CD pipelines, testing new releases, improving documentation, and planning architectures for future software
- Developed a software stack using modern Java frameworks, HTTP microservices and Docker containers to support new hardware at satellite ground stations
- Prototyped a cloud-based architecture for future releases of monitoring and control software designed to be deployed on AWS
- Built an automation tool capable of building and testing the software stack across multiple testing environments and packaging the final product for deployment at a remote facility
- Assisted in managing the team's agile development cycle and Jira ticketing system

Graduate Research Assistant at Virginia Tech (Fall 2018 – Summer 2020)

- Performed research in methods of providing software isolation on shared public cloud computing platforms such as Amazon Web Services and Microsoft Azure
- Developed a novel isolation technique using Intel Software Guard Extensions and a working proof-of-concept published in a Master's Thesis: "Securing the Public Cloud: Host-Obscure Computing with Secure Enclaves"
- Authored a cloud security overview paper presented at IEEE SoutheastCon 2020

Virginia Open Course Platform Lead Developer at Virginia Tech (Spring 2019 – Spring 2020)

- Supported education in the state of Virginia by developing an online platform to allow student use of remote desktop environments
- Architected and implemented an automated provisioning system to build and provide access to customized remote workstations using AWS

Enterprise Forensics DevOps Engineer Intern at FireEye (Summer 2019)

- Designed automation tools to assist the deployment of FireEye's network packet capture and analysis software in a private cloud environment
- Developed a Ruby on Rails plugin for the Foreman automation platform to allow dynamic provisioning of virtual machines on VMWare vCloud Director infrastructure

DevOps Engineer Intern at Virginia Cyber Range/U.S. Cyber Range (Fall 2017 – Summer 2018)

- Enhanced the state of cybersecurity education by developing a safe, online platform for students to practice offensive and defensive computer and network security
- Developed automation tools to provision cloud resources using Ansible playbooks
- Architected a platform usage monitoring dashboard using AWS APIs, Python and Grafana

Software Engineer Intern at FTS International (Summer 2017)

- Architected and developed a centralized satellite data content management system to be deployed on Amazon Web Services
- Designed and implemented an HTTP API for data storage using Python/Flask and MongoDB
- Developed a web front-end for satellite position tracking and visualization using HTML, JavaScript, D3.js and Cesium

Software Engineer Intern at Rackspace (Summer 2016)

- Developed software that identifies incorrectly labeled emails in a customer's inbox by training a spam classification model using a software stack of Python, Redis, RabbitMQ, and MongoDB