Collins Huff

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Education

- **University of Virginia** — Charlottesville, Va
  BA in Computer Science, BA in Mathematics — *Jan. 2017 – Dec. 2018*
  - Overall GPA: 3.93

Experience

- **Counterflow** — Crozet, Va
  Software Engineer — *Jan. 2019 – Present*
  - Built binary classifier for distinguishing domain names generated by DGA from benign domains using Python and scikit-learn.
  - Implemented streaming heuristic-based clustering algorithm for Suricata IDS alerts in Go.
  - Developed application for prioritizing Suricata IDS alerts using C and Lua.
  - Integrated threat intel feed from CrowdStrike into Argus Network Monitor.
  - Developed XDP program for forwarding anomalous packets to full PCAP device.
  - Managed on-premise deployment of software at a beta customer's site.

- **Volume Integration** — Reston, Va
  Software Development Intern — *May 2018 – Aug. 2018*
  - Built deployment system for a distributed application running on AWS using Python and Boto3
  - Built Continuous Deployment pipeline in a development environment using Atlassian Bamboo in order to aid in testing and speed up the development process.
  - Implemented Blue-Green deployment for upgrades to web app software, resulting in zero downtime upgrades.
  - Automated upgrades to Apache Kafka cluster running on AWS EC2 instances.
  - Improved Public Key Infrastructure by allowing the automatic rotation of certificates, avoiding authentication errors due to expired certificates.

Projects

- **Trivia Solver**
  Answers multiple choice trivia questions — *Dec. 2017*
  - Allows the user to select the area of the screen in which the question and answers will appear
  - Performs optical character recognition using the Tesseract OCR engine in order to convert the image of the question and answers into text
  - Uses the Google Custom Search API to determine the best answer

- **PSLT Subscale**
  Software for the onboard computer for the PSLT Subscale Rocket — *Nov. 2016 – Dec. 2016*
  - Collects data on acceleration and spatial orientation from an inertial measurement unit
  - Collects data on latitude, longitude, and altitude from a GPS module
  - Sends data using an Xbee transceiver to a computer on the ground where it is graphed in real time using the PyQtGraph library

Skills

- **Programming Languages:** C, Python, Lua, Rust, Go

- **Other**: Linux, Docker, XDP