

BLAKE COLE

Annapolis, Maryland

www.bcole.xyz

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SUMMARY

B.S. in Physics, creative problem solver, able to draw from a wide range of experience. Highly motivated to learn new skills required for a project. Versatile laboratory training including optics, chemistry, biology, circuits, radiation and laser safety certifications. Several years of experience using Ubuntu Linux, Python, and building computer hardware including Raspberry Pi and Arduino platforms. Experience with software such as Docker, Proxmox, Kibana, NMAP, Jira, Wordpress, and AWS Cloud resources. Currently studying to earn AWS Solutions Architect Certification.

EDUCATION

ROCHESTER INSTITUTE OF TECHNOLOGY

2016-2020

B.S. Physics (Immersion in Environmental Studies)

Coursework Includes: Advanced Quantum Mechanics, Advanced Computational Physics, Lasers, Nuclear Physics, Special Relativity, Physical Optics, Vector Calculus

Organizations: Linux Users Group, FOSS, Bitcoin Club, Society of Physics Students

WORK EXPERIENCE

KBR Inc. (INTERNSHIP) GREENBELT, MARYLAND 2021-2021

Created monitoring, compliance, and metrics dashboards; specifically for FedRAMP High and IL5 environments utilizing an ELK Stack and AWS Cloud Resources as part of the DevSecOps internship project. AWS Cloudformation was used to deploy resources including EC2 instance, Elastic Load Balancer, and S3 bucket.

TESLA MOTORS BELTSVILLE, MARYLAND 2020-2021

Worked in the Energy division installing Solar Roof and residential re-roofs. A variety of skills including masonry, carpentry, and electrical work were used to waterproof, repair, install, and wire solar circuits. Please reach out to the Beltsville office or me for references.

NASH EVENTS DC MARYLAND VIRGINIA 2013-2018

Installed event media including lighting, fencing, and tenting at public and private events including the DC Pride Parade, Citi Open, Guns N' Roses at FedEx Field, and the Smithsonian's Apollo 50: Go for the Moon

PROJECTS

- **Particle Tracking Experiment** created a Python program using the Trackpy library to track the trajectory of multiple particles on a microscope slide and developed an experimental routine to study Brownian Motion in the particles
- **Software Defined Radio** decoded NOAA APT Satellite images using an RTL-SDR and open source software

- **Automated Twitter Profile** interfaced with the Twitter API using Node.js to tweet the script of Star Wars Episode IV (www.twitter.com/astarwarsbot)
- **Morse Code Communication using Lasers** wired and scripted an Arduino circuit and program to encode morse code characters into laser light pulses
- **Capacitance Meter** created an inexpensive device for measuring and displaying capacitance in real-time using an Arduino, tin foil, and a plastic cup
- **Python Random Walk** wrote a python program to simulate Brownian Motion for N particles

SKILLS

Technical Writing, Data Acquisition and Presentation, Basic Circuitry and Soldering, Virtualization, Fundamental Computer Networking, Webserver Development and Deployment, Technical Problem Solving/Troubleshooting/Researching/Googling

SOFTWARE EXPERIENCE

Linux, Python, BASH Command Line, Arduino, LaTeX, Gnuplot, AWS Cloudformation, AWS Elastic Load Balancer, AWS S3, ElasticSearch, Logstash, Kibana, Grafana, Virtualbox, Proxmox, Docker, Wordpress, NGINX, Cloudflare Teams, JIRA, Vim, OpenVPN, NMAP, Secure Shell Protocol (SSH), Microsoft Office, Node.js, TrueNAS, PiHole,

CERTIFICATIONS
