

*A capable programmer whose main strength is on-the-job technical flexibility and adaptivity*

## EDUCATION

**University of Colorado Boulder College of Engineering: Computer Science (GPA: 3.2)**  
**Minor: Nordic Studies**

**Sept 2016 - Dec 2019**

## TECHNICAL EXPERIENCE

### Languages:

Python · PyQt  
LaTeX · PowerShell  
C · C++ · C#  
Java · Javascript · HTML  
VBA · BASH · SQL

### Technical:

Automation over serial streams  
Linux Administration (Fedora, CentOS, Ubuntu)  
Test-driven development  
Trained in Object Oriented concepts and Functional programming  
Basic networking experience

### Soft:

Technical writing and documentation  
Frequent public speaking  
Effective communication  
Flexible and fast learner

## PROFESSIONAL

### Computer Science Senior Thesis: Vehicular Log Verification with Blockchain

**January 2019-Present**

- Designed and developed software for vehicular log verification.
- The software used blockchain technology to secure data and ensure data authenticity.
- Worked in collaboration with the Neutral Vehicle group to add the software to an international vehicular log standard.

### Flexential Professional Services Engineering Intern

**June 2019-August 2019**

- Wrote PowerShell script to pull vCenter VM usage details for Cloud Readiness Assessments.
- Developed software to take ScoutSuite AWS Vulnerability data and generate a Cloud Security Audit report.
- Configured and networked ESXi hosts for internal development and lab use.
- Miscellaneous jobs helping with Security and Compliance, Security Audits, and Penetration Testing including social engineering and OSINT

### Varanus Ltd. Founder

**April 2018-January 2019**

- Varanus Ltd. was a security start-up focused on providing advanced intruder detection in a convenient monitoring suite.
- Specialized in detecting database compromise and log file tampering using honeytokens and LogChain Blockchain technology.

### HP Inc. Workstations R&D Linux Team Intern

**May 2018-August 2018**

- Investigated automation frameworks for Linux benchmark testing.
- Wrote several Linux-compatible benchmarks for the Software Tools team's Auto Framework.

### SpectraDynamics Inc. (SDI) Intern

**May 2017-May 2018**

- Developed software to analyze spectroscopy graphs and automate laser frequency tuning for a precision electronics laser system used in a rubidium atomic clock, over a serial stream using Python.
- Migrated this software to a Raspberry Pi and developed an extensible user interface (GUI) using PyQt4 for controlling multiple serial devices inside of the atomic clock.
- Developed an automation script for a Pick and Place machine, using VBA to convert .xls file to specialized formatted CSV files.

### Cooperative Institute for Research in Environmental Sciences (CIRES)

**August 2016-May 2017**

#### IT Student Support Specialist

- Computer support for externally-funded on-campus research department.
- Assisted with set-up, integration, and maintenance of servers, and utilized problem-solving skills for debugging of project programs and troubleshooting computer and user issues.

### Battlespace Simulations, Inc.

**2014, 2015**

- Summer internship providing programming services to a contractor to the US Department of Defense and the UK Ministry of Defence.
- Programmed radar simulations and a graphical user interface (GUI) editor for creating simulated objects in the development of simulation software used for training warfighters on the use of equipment in C#.

## HACKATHON AWARDS

- HackCU V 1st Place Smart Contract Hack: CAN Theft Auto: Blockchain  
Code: [github.com/aowsenek/NV\\_BlockChain](https://github.com/aowsenek/NV_BlockChain)
- MD5 Hackathon 1st Place: Varanus Security Monitoring Suite & Advanced Intruder Detection  
Code: [github.com/ComputerBear/varanus](https://github.com/ComputerBear/varanus)
- Facebook ITP Hackathon 1st Place: Network Failure Interfaces Challenge  
Code: [github.com/aowsenek/FBHackathon18](https://github.com/aowsenek/FBHackathon18)
- Cisco ITP Hackathon 2nd Place Hack: Malicious User Pinpointing  
Code: [github.com/lalaithion/IceGeckos](https://github.com/lalaithion/IceGeckos)

- HackCU IV 4th Place Hack: Pothole Vigilante

Code: [github.com/aowsenek/HackCU4](https://github.com/aowsenek/HackCU4)

## AWARDS AND ACHIEVEMENTS

- Chancellor's Achievement Scholarship
- Engineering BOLD Participation Scholarship
- Ole Virginia Ham Radio Scholarship
- Inducted into 4-H All Stars
- TJ Prince William County Chess Team Awards -2nd Individual, 2nd & 3rd Team
- President's Volunteer Service Award

## PROJECTS OF NOTE

### Strategic War Simulator

Robotics class final project to create a chess-playing Sawyer robotic arm.

Code: [github.com/sloughlin/STRATEGIC\\_WAR\\_SIMULATOR](https://github.com/sloughlin/STRATEGIC_WAR_SIMULATOR)

### DiplomacyBot

Led a small team in building a Slack chat room bot that managed a Diplomacy game.

Code: [github.com/aowsenek/diplomacyBot](https://github.com/aowsenek/diplomacyBot)

### Annapolis Light Parade

**2014, 2015, 2016**

Built and programmed an arduino-driven dynamic light parade display for 65-foot tall holiday display on a sailboat for the Annapolis Boat Light Parade.

### Thomas Jefferson High School for Science and Technology Microelectronics Laboratory Senior Research 2016

Conducted research on developing a Digital Time Capsule (DTC) using a Raspberry Pi that was completely self-contained with 7-15 year power. This DTC was able to store and retrieve large amounts of data, connect wirelessly, remain dormant for years at a time, after which time it self-activated and started broadcasting to the world.

## EXTRACURRICULAR & VOLUNTEER ACTIVITIES

**Hackathons:** Award winner in the MD5, Facebook, HackCU 3,4,and 5, T9Hacks, and Cisco Hackathons. Participant in HackTJ

**CU Nordic Club:** President 2018-2019

**4-H:** State Reserve Champion Senior 4-H Portfolio, Senior Leader Volunteer, Camp Counselor