

Artemis Livingstone



+44 7902 160039
ar.d.livingstone@gmail.com
<https://www.linkedin.com/in/artemis-livingstone/>
blog.anthrax.social

WORK EXPERIENCE

L3Harris CURRENT, FROM SEPT 2022 (FT)
Software Engineer and Vulnerability Research Intern

Details of role and projects are under NDA.

D. E. Shaw & Co. JUNE 2022 – SEPT 2022 (FT)
Systems Intern

- Developed policy for credential distribution and self-service credential resetting tools followed by an implementation in Rust served using k8s deploying via helmcharts.
- Developed libraries to allow for Kerberos authentication as middleware and guards in the Rust-based Rocket.rs and Actix frameworks with a fellow intern.
- Added Kerberos support to internal Rust libraries, enabling communication with internal HashiCorp Vault instance.
- Identified time sinks in common VOD tasks, then implemented PowerShell and Bash tooling for them by reverse engineering the admin API for Cisco Webex. This included a prototype for bulk recording search and download as well as scriptable user permission updates.

Sunday Group Inc JUNE 2021 – JUNE 2022 (FT/PT)
Security Consultant and Developer

Sunday Group are a blockchain development group working on developing a trust-based authentication system for proof of work based crypto currency.

- Developed Merkle Tree based authentication system in Rust.
- Audited memory unsafe code for back-end server system.
- Developed set of fuzzing tools to help target a JSON RPC server.
- Developed and tested the trust-based authentication system from white papers in Rust.
- Developed and deployed containerized instances to allow for software to run regardless of hardware.

PROJECTS

Functionally Programmed Discord Bot HASKELL

- Created a Discord bot that serves over 500 users with various useful learning resources.
- Used Docker containers to administer deployment on several servers.
- Researched and implemented monadic interactions for file IO and reacting to events with persistent data.

CTF Focussed DNS Server RUST

- Created a concurrent DNS server using Rust.
- Used asynchronous code as well as threading to deal with requests concurrently.
- Included Exfiltration and Infiltration capabilities, as well as facilitating for DNS rebinding attacks by utilizing very low caching times.

AWARDS

- | | |
|------|---|
| 2023 | RET2 Wargames Training Completed
<i>RET2</i> |
| 2022 | 6th Place at DEFCON 30 CTF
<i>Organizers</i> |
| 2021 | SANS Foundations Certification
<i>GIAC</i> |
| 2021 | 1st Place in Hack the Box University CTF
<i>SIGINT</i> |

EDUCATION

The University of Edinburgh 2020 – 2025
BSc (Hons) Computer Science

EXPECTED FIRST CLASS HONOURS.

- Object-Oriented Programming (97%): imperative and object oriented programming in Java including software architecture and unit testing.
- Computer Systems (93%): processor architecture, MIPS Assembly, low-level programming in C.
- Introduction to Algorithms and Data Structures (81%): theory, practice, and runtime analysis of algorithms and data structures.

The University of Pennsylvania 2023 – 2024
Incoming Exchange Student, Computer Science

EXTRACURRICULAR

Edinburgh Computer Society SEPT 2020 – SEPT 2022
President

Elected as First Year Representative for 20/21 and President for 21/22. Led a large committee with several sub working groups: managed budget (>£30,000), liaised with sponsors, organized events. Administrated a digital social space with 500+ members, where students can interact with one another and get help from older students and graduates.

Tardis Project SEPT 2021 – JUNE 2022
Head Systems Administrator

Tardis is a student-run organization at the University of Edinburgh, providing self-hosted services for 200+ students as well as a space for gaining hands-on experience in systems administration.

- Deploying Grafana monitoring via Nix using Digga.
- Managing a budget of £3,000 to keep Tardis upgraded and in line with safety standards.
- Oversaw migration from university to private location.
- Currently working on setting up a Kubernetes cluster.

SIGINT, Edinburgh's InfoSec Society SEPT 2020 – SEPT 2022
Social Secretary

Organized and created challenges for PwnEd 2, 3 and 4; some of the biggest university CTFs in the UK (250+ participants).

Organizers CURRENT, FROM MARCH 2022
Player

Play CTF as part of Organizers, the number 1 team in 2022. Played in over 10 high-ranking CTFs in the 2022 season.

SKILLS

PROG. LANGUAGES	Rust, Python, Haskell, Java.
TOOLS	Linux, Bash scripting, Powershell, Docker. Experience with CI tools and Kubernetes.
CYBER SECURITY	Broad experience of web and web-app based exploits. iOS App Teardowns and Internals.
LANGUAGES (FLUENT)	English, Russian.