AARON CUNNINGHAM

Address: D99, Wellington St Plaza, Newcastle,

NE4 5SA, United Kingdom

Email: a.cunningham7@newcastle.ac.uk

Nationality: British

Phone: +44 7860149213

Date of birth: 29/01/1999

<u>LinkedIn</u> <u>GitHub</u>

Personal Website

PROFILE

Dedicated Computer Science student with a background in the British Army, currently pursuing a Bachelor of Science degree at Newcastle University. Proven ability to balance academic commitments with part-time work for a charity, resulting in valuable professional experience and refined soft skills. Actively seeking internship opportunities to enhance technical and professional experience within diverse environments.

SKILLS

- Programming Languages: Python, Java, C.
- Web Dev: HTML, CSS, Flask, React, JavaScript.
- Data Frameworks/Databases: MYSQL, MongoDB, Database Design, Hibernate, Pandas.
- **Version control**: GitHub, commits, push, branching/merging and collaborating on team projects.
- **Networking**: Network layers, their realisation in TCP/IP, Protocols.
- IDE's: VS Code, IntelliJ, PyCharm, WebStorm, CLion.
- Additional: Socket programming, Web Security programming, Systems programming (IPC), OOP.
- Languages: English (Fluent), German (A1).

EDUCATION

Newcastle University, September 2022 – June 2025

Bachelor of Science, Computer Science (With Honours)

Year 1 Modules: <u>CSC1031</u>, <u>CSC1032</u>, <u>CSC1033</u>, <u>CSC1034</u>, <u>CSC1035</u>

Year 1 Grade: 1:1 / 82.2%

Year 2 Modules: <u>CSC2031</u>, <u>CSC2032</u>, <u>CSC2033</u>, <u>CSC2034</u>, <u>CSC2035</u>

Year 2 Grade: Not released.

Freie Universität Berlin, July 2023 – August 2023

German Language A1

• **Grade**: 1.3 (First Class)

Middlesbrough College, September 2021 - June 2022

Level 3 Computing

- Subjects: Programming, Mathematics for Computing, Mathematics, Computer Systems, Database Applications, Systems Analysis and Design, Webpage Design and Production, Cyber Security
- **Grade**: 45/45 credits at Distinction (100%)

PROJECTS

Lottery Web Application: Source Code

Python, Flask, Hashing, Encryption/Decryption, Authentication, Authorisation, PostgreSQL, reCAPCHA

- Additional features: Hashed passwords, 2FA using Pin keys, Role based access control, Logging, validation of user input, security headers, digital signatures,
- This is a lottery simulation application which has Admin features and user features.
- The user can submit lottery numbers (Random or self-generated) which would be encrypted and then the admin will be able to run the lottery by choosing a random winning draw.
- Additional features: Hashed passwords, 2FA using Pin keys, Role based access control, Logging, validation of user input, security headers, and digital signatures.

Reliable file transfer protocol: Source Code

Java, Socket Programming

- This project was all about transferring a file over a network using the **UDP Protocol**.
- The program was implemented with error simulation using the arguments ('wl') that simulated lost Acknowledgements, ('wt') which simulated timeout from the client and ('nm') where the transfer mode was normal without errors.
- This project not only showcased my expertise in Java and socket programming but also demonstrated my understanding of network protocols and error handling mechanisms.

Quiz Application: Source Code

Java, OOP, Hibernate, Team project

- This is a CRUD application based off the well-known web app called 'Quizlett'. Made use
 of the Hibernate framework to connect to a database to create, read, update, and delete
 questions.
- Collaborated with a dynamic team of 4 peers. Our collaborative efforts were supported
 by strong teamwork, communication, and where each member in the team played a
 crucial role.
- My role was Database design and implementation, I came up with the connection to the DB, and the queries to perform CRUD.

EXPERIENCE

Sue Ryder Charity, Northallerton, October 2021 – September 2022Delivery driver

- Worked within a team of 3 and trusted to make fast and efficient pick-up and delivery services to 100's of vulnerable clients.
- Designated to plan and coordinate my pick-up and delivery routes throughout Yorkshire and Northeast England.

British Army, United Kingdom/Estonia, March 2016 – June 2021 EPLS Operator

- One of 3 selected out of a troop of 20 to manage and issue specialised military equipment to personnel deploying on exercises.
- Advised route planner colleagues on quicker and more efficient routes to my intended destinations.
- Took charge of highly flammable fuel vehicles and distributed fuel to other military vehicles
- Completed a team medic course which gave the responsibility of taking care of a section of 12 personnel within my troop on military exercises.