Cameron Samuel Leech-Thomson

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Hickleton, Doncaster

An adaptable and driven Computer Science MSc graduate with a strong focus on problem-solving, technical proficiency, and experience in a dynamic, fast-paced environment.

Education

September 2023 - August 2024: Advanced Computer Science MSc, University of Leeds

- **Achieved**: 2:1
- **Thesis Title:** "Enhancing Music for the Hearing Impaired Using Machine Learning" **(73%)**
- **Relevant Modules:**
    - Deep Learning **(64%)** - Comparison of different image classification techniques, creating, training, and testing Multilayer Perceptrons, and Convolutional Neural Networks. Also implementing Recurrent Neural Networks to generate image captions and metadata.
    - Advanced Software Engineering **(63%)** - Analysis of software architectures and workflows, as well as minimising complexity and redundancies by using quality characteristics.
    - Programming for Data Science **(91%)** - Building data analysis and processing skills using Python and its various libraries.

September 2019 - June 2022: Computer Science BSc, University of Sheffield

- **Achieved:** 2:1
- **Dissertation Title:** “Virtual Reality Physics Manipulation Application” **(76%)**
- **Relevant Modules:**
    - Introduction to Software Engineering **(P)** - Creating a simple web application to meet specification of pretend clients (GTA’s), from initial requirements to completion, while meeting regularly to maintain adherence to requirements as they change.
    - Software Reengineering **(64%)** - Analysing outdated/unknown software with specialised methods and software, then rebuilding them more efficiently.
    - System Design & Security **(78%)** - Starting with customer requirements, and using software analysis and design skills to create robust systems for target customers, with potential risks and secure strategies in mind.

Technical Skills

Programming and Coding Languages: Python (Pytorch, Tensorflow, Scikit-Learn, Numpy, SciPy, Librosa, MatplotLib), Java, C#, Haskell, Prolog, HTML, CSS, JavaScript, Ruby, C++, Kotlin.

Frameworks and Other Libraries: Ruby on Rails, Bootstrap, Python libraries.

Tools: Proficient in version control (Git, GitHub), development environments (Visual Studio Code, JetBrains’ IDEs), database management (SQL), microcontroller programming (Arduino), project organisation tools (LaTeX, Slack, Trello), game development engines (Unity, Unreal Engine, Godot).

Relevant Experience

June 2022 - September 2022: Audio Technician, Forge Media

- Managed audio systems for live video and radio broadcasts of Varsity events, including high-profile ice hockey coverage at Sheffield Arena to over seven thousand viewers.
- Directed team operations during live broadcasts, managing transitions between scenes and communication with reporters, crew, and pundits via earpieces.
- Worked with a large evolving team under high-pressure conditions to ensure flawless execution of live, all-day productions.
- Adapted to fast-paced environments, troubleshooting audio issues in real time to maintain broadcast quality.
- Coordinated multi-camera video production setups by integrating audio systems and aligning with visual outputs for seamless delivery.

September 2018 - April 2019: Volunteer Teaching Assistant, Ridgewood Post-16 Academy

- Provided classroom support in Year 7-8 mathematics lessons alongside A-Level studies.
- Facilitated student learning by encouraging independent problem-solving, offering guidance only when necessary.
- Assisted with the marking and correction of classwork, quizzes, and other assessments.
- Helped manage classroom behavior by de-escalating conflicts and promoting a focused learning environment.

Technical Projects

Engineering - *You're Hired!* (EYH):

- Worked in a team to produce a renewable and sustainable method of building deconstruction.
- Developed plans for a remotely-operated demolition robot fitted with a high-power water jet to aid in bottom-up demolition projects while keeping operators at a safe distance.

Global Engineering Challenge (GEC):

- Worked in a team to develop solutions for problems faced in Johannesburg, South Africa.
- Led our team and made sure everything was completed on time.
- Delivered a strong final pitch to over 50 people concerning the details of our solution.

MSc Thesis - Enhancing Music for the Hearing Impaired Using Machine Learning:

- Undertaken as part of the Cadenza Project - a multi-institutional group of various Russell Group Universities dedicated to the research of personalising music for the hearing impaired.
- Developed a genetic algorithm to maximise the clarity of lyrics in music making use of signal processing techniques such as equalisation, compression and filtering.
- Built to run on hearing aids.

Blogging Site with Chatrooms & Story Uploads:

- Worked collaboratively as part of a team to develop a blogging platform for fictional spy stories.
- Featuring chatrooms for discussions and tagging story elements with Google Knowledge Graph outputs using JavaScript, Socket.io, APIs, and intelligent web frameworks.

BSc Dissertation - Virtual Reality Simulation of Special Relativity with Puzzles:

- Developed a VR puzzle game simulating special relativity by enabling the user to adjust the speed of light and observe relativistic effects using Unity, C# and Oculus VR development.
- By reducing the speed of light the user can experience accurate simulations of the relativistic effects observed when objects are travelling at or near the speed of light.

Achievements and Hobbies

- Contributed to the improvement of student-led activities within the School of Computing as a member of the University of Sheffield's Computer Science Society for over 2 years.
- Covered various Student Union led events as a member of the forge media team for 4 months.
- Hobbies & Interests: Coding, Game Development, Football, Gaming, Live Music.

Additional Information

- Full Driving Licence
- Type-1 Diabetic (Fully Independent)