

James McKenna

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Personal Profile Statement

I am a highly motivated Master's Computer Science graduate, who is exceptional at finding new ways to overcome current problems. I am always willing to find the most suitable solution to any problem that I am given.

Education and Qualifications

Liverpool Hope University (2018 – 2022)

-MSc Advanced Computer Science (Distinction) 10/2021 – 10/2022

- Dissertation – Using The Things Network and the BBC Micro:Bit to improve Education and Safety (92%)
- Internet of Things – Created a classroom system using the BBC Micro:Bit to encourage anonymous communications between students and teachers (92%)
- Virtual Reality – Developed a virtual room where users can interact and manipulate objects to help regulate emotions (92%)
- Artificial Intelligence (B+ in the exam and A in the coursework)
- Theoretical Computer Science (C in the exam)
- Numerical Methods (C in the exam)
- Big Data Analytics (76%)

-BSc (Hons) Computer Science (1st Class) 10/2018 – 06/2021

- Introduction to Computer Science (Additional) (A)
- Introduction to Computer Science (A)
- Explorations in Computer Science (Core 2) (AA)
- Explorations in Computer Science (AA)
- Advanced Studies in Computer Science (Core 1) (A)
- Advanced Studies in Computer Science (Core 2) (A)
- Computer Science Dissertation – Using Genetic Algorithms to play Sonic the Hedgehog (1991) (76%)
- Overall aggregate mark for Programme: 75.85

Blessed Thomas Holford Catholic College (09/2011 – 06/2018)

A-levels:

-3 GCE A-levels in Computer Science (E), History (C), and Creative Media (Distinction)

GCSE's:

-10 GCSE's grade A-D including C in English and B in Maths.

Technical Skills

- Experience in Python, Java, JavaScript, PHP, C, C++, C# Script, and MicroPython.
- Python programming – using libraries such as Pandas, OpenAI, and NEAT to create a genetic algorithm. Also using sqlite3 to make databases and SKLearn to create a machine learning algorithm to predict the movement of a stock on the stock market.
- Experience in HTML and CSS mark-ups, including A-Frame to create a VR game, which can be played on a locally hosted website.
- Development of Artificial Intelligence and Machine Learning.
- Using IoT and VR devices to create solutions to problems, such as the BBC Micro:Bit v2 and a Raspberry Pi 3 Model B with a LoRa Gateway HAT to create a network gateway to receive and process incoming data from transmitters. Additionally, the Oculus Quest 2 was used as a developer kit device to create a VR project in Unity using C# Script.
- Exceptional knowledge using Microsoft office applications, such as Excel and Word.
- Experience in SQL, such as MySQL and sqlite3.
- Good knowledge of Big Data analysis using Apache Pig and Ubuntu.

Additional Skills

- Capable of completing tasks to a high standard on time, meeting deadlines for university coursework and portfolios.
- Great communication skills.
- Creating my own code during my spare time to improve my understanding of certain programming languages and technological features (see my GitHub page).
- Team working skills were improved when I joined the Peer Action Collective at YPAS, which encourages communication and listening to others.

Work Experience / Employment

IT assistant, Christie NHS Foundation Trust, Manchester, 2017

- Imaged new software and operating systems.
- Created new ports for the network.
- Managed new devices for staff.
- Worked in a small team to manage security.

IT assistant, Blessed Thomas Holford Catholic College, Manchester, 2017

- Managed the school's database for new upcoming sixth form students.
- Recommended operating systems for school computers.
- Helped resolve technical issues for teacher's devices.

Young Ambassador and Peer Action Collective Member , YPAS (Young Persons Advisory Service), Liverpool, 2022

- Encourage cooperation as a group and bring new ideas to reduce youth crime across Liverpool.
- Created an IoT device using the Micro:bit to reduce sexual violence in the classroom, which was approved by YPAS.
- Connect with companies and council officials to discuss new ideas to help young people.

Assistant at Trendz Barber Shop, 2018

- Handled payments slips to employees.
- Cleaned the shop floor and dealt with customer payments.

Interests and Hobbies

- Interest in Artificial Intelligence, IoT, and technology.
- Built my own desktop PC.
- Gaming during my spare time to overcome obstacles and find new ways to improve gameplay.
- Created a zombie map for Black Ops 3 using Radiant as a side project with university colleagues.
- Enjoy fitness and exercise to benefit my physical and mental health; highly motivated to improve myself. I have joined the Powerlifting society at university to gain knowledge on improving form and lifting heavier weights. The society also improved my social skills with the society members.