James McKenna

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EDUCATION

Liverpool Hope University   **October 2022**

Degree (MSc), Advanced Computer Science – Distinction (76.33%)   Liverpool

- Dissertation – Using The Things Network and the BBC Micro:Bit to improve Education and Safety (92%).
- Internet of Things – Created a classroom communication 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%).
- Big Data Analytics – Used Ubuntu and Apache Pig to process big data and create conclusions based on the data that was analysed (76%).

Liverpool Hope University   **September 2021**

Degree (BSc), Computer Science – 1st Class (75.85%)   Liverpool

- Dissertation – Using Genetic Algorithms to play Sonic the Hedgehog (1991) (76%).
- 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).

WORK EXPERIENCE

The Christie NHS Foundation Trust   **June 2017 – June 2017**

IT Assistant   Manchester

- 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.
- Shadow placement with a Python developer at the Applications Department.

Blessed Thomas Holford Catholic College   June 2017 – June 2017

IT Assistant   Manchester

- 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 Person's Advisory Service (YPAS)   May 2022 – Present

Young Ambassador and Online Changemaker   Liverpool

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

SKILLS AND INTERESTS

Skills

- Programming Languages: Python, JavaScript, C# Script.
- VR Development: Unity Engine, Oculus Quest 2.
- Web Development: HTML, CSS, A-Frame.
- Technologies: Virtual Reality, Internet of Things (IoT), Big Data, Artificial Intelligence (AI).
- Python Libraries: Folium, Webbrowser, Requests, Heapq.
- Databases: SQLite3, MySQL.
- APIs: Queue-Times API, TfL API.
- Data Analysis: Pandas, Matplotlib.
- Machine Learning: OpenAI, NEAT, Scikit-Learn.
- Microsoft Office: Excel, Word.

Interests

- Fitness and Exercise: I prioritise fitness and exercise for physical and mental well-being, constantly striving for personal improvement. I also joined the Powerlifting society during my time at university, which enhanced my knowledge of form and social skills.
- Voluntary Work: Engaged with a mental health charity (YPAS) to address young people's issues and collaborate on innovative solutions.
- Theme Parks: Passionate about theme parks. Developed an Alton Towers ride planner and an SQLite3 database for theme park data manipulation (see GitHub: "AltonTowersPlanner" and "ThemeParkDatabase").