Cameron McGrath-Johnston

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PROFILE

I am a final year BSc Computer Science Student at the University of Hertfordshire and an experienced programmer with a passion for games development, and 3 years of professional experience across multiple roles. I am keen to start my career in the exciting, fast-moving global world of software and games development; and am looking forward to developing my skills to help further advance its use in innovative applications which have an impact for good in society. I aspire to lead projects that bring innovation and entertainment on a global scale.

EDUCATION

9/2021 - present	**BSc (Hons) Computer Science (Software Engineering)** - *University of Hertfordshire* Year1 GPA: 4.34/4.5, Year2 GPA: 4.03/4.5 Thesis: *Development of a prototype FPS game for the comparison of aim assistance algorithms.*
9/2019 - 6/2021	**A-Levels** - *Beaumont Sixth Form* Maths A*, Computer Science A, Further Maths B, Physics B

WORK EXPERIENCE

6/2022 - present	**Student Proctor** - *School of Physics Engineering & Computer Science* Working as part of a large managed team assisting with various tasks around campus. Tasks have included: laser cutting and 3D printing, managing/stocking inventory, data handling, event preparations, supervising student project work on the new Conceive, Design, Implement, Operate (CDIO) engineering modules. Personally spearheaded the research and creation of a robotics training document. Our initiative freed over 1000 staff hours, and was recognized with the 2023 Vice Chancellor's Award for Team of the Year.
6/2023 - 10/2023	**Game Design Intern** - *Games Research* Engineered cutting-edge software solutions leveraging procedural content generation for Live Action Role-Playing Games (LARPs) using ChatGPT. Resulting in heightened immersion and a dynamic gameplay experience. Programmed in a Python Jupyter Notebook to interface with the OpenAI API, implemented GitHub for version control and file sharing, UI design with HTML and CSS, researched and made use of existing libraries. Pioneered experimental knowledge into Large-Language Models, evolving their capabilities within games for research and industry.
6/2022 - 12/2022	**Research Assistant** - *Bioengineering & Instrumentation* Played a key role exploring the mechanical properties of dental polymers. Demonstrating expertise in Computer Aided Design using Fusion360, 3D printing, casting resins, laser cutting, and three-point stress testing. I developed a diverse set of skills, contributing towards the delivery of top tier research hoping to transform dentistry around the world.
1/2022 - 9/2022	**Independent Information Technology Tutor -** *Bita Consulting* Instructed and mentored children from years 3 - 6 in classes of 15-30 pupils in classroom settings and via individual and small group sessions online using Microsoft Teams. Cultivated a fun learning environment characterized by patience and clarity. Evidenced by the intrigue and curiosity shown by the pupils, I left a lasting impression and shared with them a deep passion for programming.

ACHIEVEMENTS

- Million Makers best in year raising funds for the Prince's Trust, 2017. Achieved by partnering with another team to increase success and support each other. Demonstrates drive and collaboration
- Most committed player award for Basketball, 2016, Beaumont School. Demonstrates reliability
- Full UK driver's licence. Demonstrates independence
- Self-published platformer with 4 unlockable levels, 2 enemy types with different behaviours and dangers, a menu, settings, and a full 140-page post-mortem documentation. Demonstrates game design skills

KEY SKILLS

- Adaptive to different programming environments: Unity, IDLE, Visual Studio, IntelliJ, LÖVE, BlueJ, Notepad++, Thonny, NetBeans, Replit, Arduino, SQL developer, XAMPP, command prompt, Jupyter
- Experience of programming in Python, Java, Lua, C#, C, mySQL, Oracle, HTML, CSS, JavaScript
- Software Engineering practices: version control, programming paradigms, development methodologies
- 3D software - Fusion 360, Blender, Unity