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. 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 — ***University of Hertfordshire, Hatfield, Herts.***
BSc (Hons) Computer Science (Software Engineering)
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 — ***Beaumont School Sixth Form, St Albans, Herts.***
A-Levels
Maths A*, Computer Science A, Further Maths B, Physics B

WORK EXPERIENCE

6/2022 - present — **Student Proctor** ***- School of Physics, Engineering & Computer Science – University of Hertfordshire***
Working as part of a large managed team assisting with various tasks around campus for the school. 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; and I was personally assigned to research and create a robotics training document for the team. Our work has proved invaluable and won the 2023 Vice Chancellor's Award for team of the year.

6/2023 - 10/2023 — **Game Design Intern** ***- Games Research - University of Hertfordshire***
Developed a set of software-based solutions for a project based on procedural content generation for LARPs using ChatGPT. Programmed in a Python Jupyter Notebook to communicate with the OpenAI API, using GitHub for version control and file sharing, UI design with HTML and CSS, researching and making use of existing libraries. This gained new experimental knowledge into current AI capabilities and usability within games for research and industry.

6/2022 - 12/2022 — **Research Assistant** ***- Bioengineering & Instrumentation – University of Hertfordshire***
Student Research Assistant on a project investigating mechanical properties of dental polymers. Working independently as part of a team. My role includes CAD using Fusion360, 3D DLP printing, casting resins, laser cutting, experimental three-point stress testing, data input and processing. I gained many technical skills, resulting in high quality research for a dental company.

1/2022 - 9/2022 — **Independent Information Technology Tutor** ***- for Bita Consulting***
Teaching and assisting children from years 3 - 6 in classes of 15-30 pupils at two local schools and providing individual and smaller group sessions online via Microsoft Teams. From this I learned to be able to clearly explain aspects of programming and tasks with clarity and patience. The impact of my work was clear from the intrigue and curiosity shown by the pupils.

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;
- 3D software - Fusion 360, Blender, Unity