# CAMERON McGrath-Johnston

linkedin.com/in/cameron-mcgrath-johnston

### **PROFILE**

I am a third year BSc Computer Science Student at the University of Hertfordshire and an experienced programmer with a passion for games development. In my free time, I enjoy exploring open-source software and new concepts in programming as well as getting involved with applied technologies including 3D modelling and printing. Outside of my studies, I am currently working on a research project investigating the potential for incorporating modern AI within game design and have found this challenge to be very rewarding. I am keen to start my career in the exciting, fast-moving global world of games development; and am looking forward to applying and evolving my skills for use in innovative games. My ambition is for my contributions to have a positive impact on society.

## **EDUCATION**

9/2021 - present University of Hertfordshire, Hatfield, Herts.

**BSc (Hons) Computer Science (Software Engineering)** 

1<sup>st</sup> year: 4.34 GPA 2<sup>nd</sup> year: 4.03 GPA

9/2019 - 6/2021 Beaumont School Sixth Form, St Albans, Herts.

A-Levels

Maths A\*, Computer Science A, Further Maths B, Physics B

9/2014 - 6/2019 Beaumont Secondary School, St Albans, Herts.

**GCSEs** 

Maths 9, Physics 9, Design & Technology 9, Computer Science 8, Chemistry 8, French 8, Biology 7, English Lang. 6, Geography 6, English Lit. 5

#### **WORK EXPERIENCE**

6/2023 - present Games Design Research Intern - Games Research - University of Hertfordshire

Developing a set of software-based solutions based on procedural content generation for chamber LARPs using ChatGPT. This is being accomplished using a Python Jupyter Notebook to interface with the OpenAl API, a HTML frontend; and research into existing libraries for optimisation. Working in collaboration with a PhD student, the project is being modified to run without any reliance on external APIs in preparation for publication of a research paper.

6/2022 - present Student Proctor - School of Physics, Engineering & Computer Science - University of Hertfordshire

Working as part of a large team, assisting with various tasks around campus for the school. Tasks have included: laser cutting, 3D printing, managing inventory, data handling; and event preparation, Additionally, supervising student project work on the new Conceive, Design, Implement, Operate (CDIO) engineering modules; and being personally assigned to research and create a robotics training document for the team.

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.

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 alongside providing individual and smaller group sessions online via Microsoft Teams. Teaching Python to beginners and intermediates carefully to ensure everyone reached the same level of proficiency while still challenging those with more experience/curiosity for the subject. Ensured that learning material and work assignments were explained clearly and patiently so that all aspects were properly understood.

# **CERTIFICATIONS**

Ongoing Harvard

GD50, Introduction to Game Development

15/10/2023 **GI Academy at EGX** 

GI Campus Passport completion at EGX 2023

6/2020 - 9/2020

### Imperial College London

A-level Mathematics for Year 12 - Course 1: Algebraic Methods, Graphs and Applied Mathematics Methods

# HARD SKILLS

- Development IDEs including Unity, IDLE, Visual Studio, IntelliJ, LÖVE, NetBeans, Replit, Arduino, & Jupyter;
- Programming Languages including Python, Lua, Java, C, C++, C#, SQL, HTML, CSS, & JavaScript;
- Version Control and file management via GitHub;
- Mathematics and Physics including vectors, matrices, algebra, statistics, and calculus;
- 3D modelling and animation including Fusion 360, Blender, Unity;

# **SOFT SKILLS**

- Adaptability Able to quickly adapt to working with new technologies and programming languages;
- Communication Experience communicating in a variety of manners including video conferencing and faceto-face, suited to working in flexible hybrid style teams;
- Creativity Highly creative with a broad range of experience in idealising concepts;
- Collaboration Adept at utilising multiple collaborative tools (e.g. Git Repos, Teams) to achieve project goals;
- Critical thinking Employing Critical and Computational Thinking to identify optimal solutions to problems;
- Empathy Demonstrable commitment to understanding and supporting young people learning programming;

#### **ACHIEVEMENTS**

- Working software prototype for ChatGPT chamber LARP. Demonstrates creativity and innovation;
- ✓ Successfully completed A-Levels through the challenges of COVID-19 lockdowns. Demonstrates adaptability and resilience;
- ✓ Million Makers best in year raising funds for the Prince's Trust, 2017. Demonstrates drive and collaboration;
- ✓ Most committed player award for Basketball, 2016, Beaumont School. Demonstrates dependability;
- ✓ Swimming Personal Survival Award, Level 2 and Silver Award Kellogg's / ASA. Demonstrates willingness to learn and personal growth;
- ✓ Full UK driver's licence;

### **INTERESTS**



Gaming – competitive FPS, looter shooters, RPGs, MMOs, Co-Op games, story driven, strategy, gacha;

YTubing – Live streams entertaining a small community and handling sponsors;

Building/Upgrading PC components – built own gaming PC, and assisted friends with specifications and potential upgrades, performing upgrades on my own and others' PCs;

Cooking – especially baking desserts and cakes;

Reading - fiction, manga, comics, and game lore;

# REFERENCES

Christoph Salge - Reader in Artificial Intelligence in Games - University of Hertfordshire - <a href="mailto:c.salge@herts.ac.uk">c.salge@herts.ac.uk</a>
Richard Kaye - Research and Development Engineer - University of Hertfordshire - <a href="mailto:r.kaye2@herts.ac.uk">r.kaye2@herts.ac.uk</a>
Vincenzo De-Bellis - Principal Technical Officer (H&S) - University of Hertfordshire SPECS - <a href="mailto:v.de-bellis@herts.ac.uk">v.de-bellis@herts.ac.uk</a>
Huria Kelifa - Independent IT Strategy Consultant - Bita Consulting - <a href="mailto:lnfo@bita-consulting.co.uk">lnfo@bita-consulting.co.uk</a>