Joseph A. Binns



EMPLOYMENT

Study Support Mentor, Lund University, Sweden

March 2021 – June 2022

Providing one-to-one tailored support and teaching for BSc students at the Department of Physics.

Festival Steward, Oxfam, UK

August 2019, August 2021

• Assisted at some of the UK's busiest festivals. Delivered efficient and proper radio communication as the acting supervisor handling critical medical emergencies.

Software Engineer, MLabs: Urban Mobility Labs, Bloomsbury, London, UK

July 2019 – August 2019

- Lead development on a realistic, real-time 3D urban environment simulation using C# and the Unity game engine, for use by an automated transport planning system.
- · Released the first build, establishing the core framework for future developments.

Baker, Marks & Spencer, Bromley, London, UK

August 2018 – July 2019

· Regularly interacted with customers and surpassed the company goals in a team oriented environment.

Conservation Volunteer, TCV, Greenwich, London, UK

December 2016 - August 2019

• Worked in a heavy labour environment in both leader and team player roles.

National Citizen Service, UK

July 2016

- Participated in 1 month worth of public speaking workshops and team building activities.
- Ultimately launched a successful pitch to philanthropists, for the benefit of local charities.

EDUCATION

YH Game Programmer, Futuregames, Stockholm, Sweden

August 2022 – December 2024

BSc Theoretical Physics, Lund University, Sweden

August 2019 – June 2022

- Selected Courses: Artificial Intelligence, Computational Physics and Quantum Mechanics.
- Notable Achievements: Semi-finalist in the 2021 Lund Innovation Challenge.
- Thesis was on the topic of Combined Regularisation Techniques for Artificial Neural Networks.

A Levels, SFH Sixth Form, London, UK

July 2016 – July 2018

- Selected Courses: [A] Physics, [A] Mathematics, [A] Further Mathematics, [B] Computer Science and [A] Extended Project Qualification.
- Notable Achievements: Two time Brilliant Club Scholars Programme graduate, for high achievers.

GCSEs, Forest Hill School, London, UK

July 2011 – July 2016

• Notable Achievements: Selected by my peers to be one of few school prefects, from a pool of over 1000.

Recipient of the Academic Endeavour Award.

SELECTED PROJECTS

Stylised Character Controller, 🕎 🔼

August 2021 – present

- Developed a Stylised physics-based Character Controller.
- Worked as a C# Game Programmer in the Unity game engine.
- · Featured in GameDevDigest.

Raymarch Explorer, 🕎 🔼

April 2019 – August 2019

- Developed a real time Raymarch Explorer capable of 3D fractal deep zooms.
- Worked as a Software Engineer in both Java and OpenGL using the LWJGL.
- Utilised arbitrary precision arithmetic on both the CPU and GPU.

N-body simulator

August 2017 – March 2018

- Developed a Real Time, *N*-body Gravitational Simulator and GUI.
- Worked as a C# Software Engineer in the Unity game engine.
- The program accesses (via Telnet) planetary data from the NASA Horizons database.
- Utilises various complexity reducing algorithms to optimise a large-scale physics-based simulation.

TECHNICAL SKILLS

Programming Fluency: C#, Python, JavaScript, Java, C++, MATLAB, LATEX, HTML, CSS.

Libraries / Frameworks: Tensorflow, Keras, LWJGL, Mapbox, Discord.js, Forge Networking, WordPress.

Additional Tools: Git, Unity, Blender, Photoshop, Aseprite, Famitracker, Visual Studio.