

Rory Simpson

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Education

University of Birmingham | Birmingham, UK | September 2022 - June 2025

BSc Artificial Intelligence and Computer Science (2:1)

North Bristol Post 16 Centre | Bristol, UK | September 2020 - August 2022

A-levels in Computer Science (A), Maths (A) and History (A)

Cambridge Pre-U qualification (equivalent A)

Projects

Final year project

Developed a top-down shooter game which implements an adaptive difficulty system combined with procedurally generated dungeons. The project includes a literature review of existing approaches to dynamic difficulty adjustment and documents the implementation of all core systems in the game.

Game jams

Took part in two game jams for the UoB game development society, where I independently designed and programmed two games in C# using the Unity engine. Each game had to fit a certain theme and was made within a week. They both scored first place in their respective jams.

Spotify web application ‘Lowertones’

Worked in a team with other students to develop a full-stack Angular web application that allows the user to discover new artists and add their music to their playlists directly in the app. My role was to implement user preferences and accessibility options and store these in our database. We used Gitlab for source control throughout development.

Design of a sustainable transport rewards application

Worked in a team to deliver a comprehensive design document for a mobile app to incentivise users to walk, cycle or use public transport to reduce carbon emissions. I worked on the requirements and specification of the system, CRC cards and class diagrams, made component diagrams for proposed server architectures and made an informed final decision on which architecture would be used.

Rhyver

A 3D rhythm game with online leaderboards inspired by Guitar Hero, developed independently in Unity and written in C#. It was submitted for my Computer Science A-level and achieved 69/75 marks.

Technical skills

Technologies/frameworks: Unity, React, Angular, PostgreSQL

Tools: VS Code, IntelliJ IDEA, Git

Languages: C#, Javascript, Java, SQL

Other experience

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Publicity officer/console representative for UoB Video Games Society

Created an Instagram account for the society as part of a rebranding effort. I was responsible for producing the marketing materials and making weekly posts to bring attention to our society events, as well as other materials such as for an inter-society quiz towards the end of term. Additionally, I organised two console-based tournaments during the term, communicated with the student guild to acquire a PS5 console and games for the society and helped fellow committee members with setting up and packing away equipment for our weekly in-person sessions.