

# HARRY DUKE

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## PERSONAL PROFILE

I have recently graduated with a First Class B.Sc. (Hons) degree in Computer Science for Games from the University of Brighton. I specialise in technical games programming and have worked on projects involving engine development, physics simulations, AI behaviour, and gameplay programming. I have experience using a variety of languages and tools for game development such as C++, Unreal Engine, Unity, and SDL. I have developed game prototypes with teams of up to five people, strengthening my teamwork and project management skills. I am currently seeking a graduate job as a games programmer.

## EDUCATION

### UNIVERSITY OF BRIGHTON

September 2022 to July 2025

BSc (Hons) Computer Science for Games, 1<sup>st</sup> Class.

Key Modules:

- **Multiplayer Game Development:** Built a C++ multiplayer game engine using test-driven development practices which automatically replicates game objects to java clients using TCP.
- **Final Year Project:** Developed an NPC simulation in Unreal Engine using C++ with a needs-based behaviour model that drives environmental interactions to create emergent gameplay experiences.
- **Game Engine Fundamentals:** Developed a 2D rigid body physics engine in C++ using SDL, implementing collision detection algorithms and handling both linear and angular collision responses.
- **Integrated Group Project:** Collaborated with four other students to develop a horror game in Unreal Engine 5. Took on a leadership role, organising tasks and ensuring smooth collaboration as well as writing the C++ source code for the project.
- **Virtual Reality Systems:** Developed a VR game featuring gesture-based combat with a four-person team using Unreal Engine.

### SUFFOLK ONE SIXTH FORM COLLEGE

September 2020 to June 2022

Mathematics (B), Computer Science (A), Games Production (Distinction), EPQ (A)

### COPPLESTON HIGH SCHOOL

September 2015 to June 2020

Mathematics (9), Physics (8), Chemistry (8), Biology (7), English Language (8), English Literature (6), Computer Science (9), French (5), History (6), Graphic Communications (8), Design & Technology (8)

## WORK EXPERIENCE

### CHEF AND BARTENDER at The King and Queen - Brighton

October 2024 to August 2025

Developed excellent customer service skills as well as teamwork and communication skills to collaborate with colleagues effectively.

### BARTENDER at Horizon Night Club - Brighton

September 2023 to September 2024

### CREW MEMBER at McDonald's - Ipswich

October 2021 to February 2025

Working quickly and effectively under pressure, multi-tasking and running multiple stations at once during quieter hours.

### CREW MEMBER at Bok Shop - Brighton

October 2022 to August 2023

### WORK EXPERIENCE at BT, Adastral Park - Ipswich

2019 (14 days)

- Completed 14 days of work experience at BT in the research sector focusing on the Internet of Things.
- Developed teamwork, programming and electronics skills and gained experience working in a professional environment.
- Completed small projects both individually and in groups.
- Created a device that could transmit a file by flashing an LED in binary and receiving the data with a light sensor.

## SKILLS

- **Game Development:** Unreal Engine, Unity, SDL
- **Programming languages:** C++ (template meta programming, thread safety and concurrent programming, modern C++ and SDL), C, C#, Python, Java, JavaScript, Lua
- **Mathematics:** vector, 3D, collision detection, linear and angular kinematics
- **Tools / technologies:** Git, Blender, CMake, Google Test framework, PowerShell, Linux
- **Teamwork and communication skills** developed through working part-time jobs with coworkers and working in groups for university assignments and game jams.
- **Retail and customer support** gained through working in customer-facing positions in multiple jobs.

## ACHIEVEMENTS AND INTERESTS

### ARKWRIGHT SCHOLAR

October 2020 to October 2021

Awarded an engineering scholarship for 16-year-old students with a rigorous selection process that included writing an application, completing an aptitude exam, and attending an interview. This opportunity gave me access to a mentor who helped me plan for my future as well as gave me opportunities such as the Deutsche Bank hackathon where I collaborated creating a program that recognised emotions from facial expressions.

### 14TH IPSWICH SCOUT GROUP

September 2010 to August 2023

Participated in scouting, including as a Young Leader with the 14th Ipswich group, where I helped with organising and running activities. I have attended various camps and expeditions. Activities as part of these include hill walking, wild camping, rock climbing, abseiling, and mountain biking.

### IPSWICH WATER POLO

September 2018 to 2022

### IPSWICH YM RUGBY CLUB

September 2011 to June 2018