

# Daniel Bates

Giddy Hill, Butt Gate, Grainthorpe, LN11 7JW

Mobile: (+44) 07927 205466 E-Mail: [Daniel.J.Bates@outlook.com](mailto:Daniel.J.Bates@outlook.com)

Portfolio: [DanielJBates.co.uk](http://DanielJBates.co.uk) GitHub: [DanielJBates](https://github.com/DanielJBates)

## Personal Profile

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An ambitious and passionate MEng computer science graduate with strong interpersonal skills as demonstrated through volunteer work and the commercial development practice module. Keen to secure employment within the industry and continue to learn and grow as a programmer.

## Technical Skills

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**Programming:** C++11-20, C#, HTML5, CSS, JavaScript, SQL, XML, OpenGL, GLSL, DirectX11, HLSL

**Technologies & frameworks:** Visual Studio 2017-2022, Unreal Engine 5, Unity, GitHub & SVN, Azure DevOps, Blender

**Work methodologies:** Agile, SCRUM, PRINCE2

## Work Experience

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### University of Hull CDP (Commercial Development Practice)

September 2022 – May 2023

As part of a small team, created a proof-of-concept learning game for IBM with the aim of increasing engagement with IBM's "SkillsBuild" learning services. The game was developed in Unity3D and managed using a blend of PRINCE2 and SCRUM.

### University of Hull Demonstrator

February 2023 – May 2023

Worked for the university to assist students in their C++ lab sessions for the 2<sup>nd</sup> year's advanced programming module. In addition, assisted in the assessment of students' weekly lab books.

## Education

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### University of Hull

September 2019 – May 2023

### MEng Computer Science for Game Development

*Masters Merit (2:1)*

- **Game Architecture & Concurrency:** Developed an Entity Component System (ECS) game engine to produce a multiplayer sketchpad "game" with using concurrency. This was created using C++ in Visual Studio 2022, and using GitHub for source control.
- **C++ Programming & Design:** Developed an understanding of the core design principles and aspects of C++ across multiple versions of the language. This knowledge was then used to complete the assignment for Real-Time Graphics.
- **Real-Time Graphics:** Using the knowledge gained from C++ Programming & Design to create a simulation of a rocket launch was developed using the DirectX 11 API.
- **Artificial Intelligence:** Developed 2 A.I. bots that would find a path to a target using an A\* algorithm & an LRTA\* algorithm. Written in C# and created in Visual Studio 2017, using GitHub as source control.
- **Object-Oriented Programming:** Developed a rudimentary computer game version of the card game UNO in Visual Studio 2017 written in C# with SVN used as source control.

- OCR Level 3 Cambridge Technical Diploma in IT: **Distinction, Distinction**
- Forensic Investigation: **Merit**
- Mathematical Studies: **B**

- 9 x GCSE (**A – C** including Maths, English, and Computing)
- TLM Level 2 Certificate for IT User Skills in Open: **A\***

## **Additional Training/Membership**

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Registered member of the British Computer Society

Google-certified Online Marketing Fundamentals

## **Interests and Activities**

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### **Course Rep**

**2019**

- Served as a representative for students of the university course, using communications skills to relay positive and negative feedback of the course and staff to the university, and any changes that will be made as a result back to students.
- Monthly meetings with staff and other course reps were held where feedback could be raised, and necessary actions could be discussed.
- As a course representative my contact information was made available to the students so any student could get in contact with me regarding the course.
- As a result, we made the course lectures more accessible for students that could not attend all lectures due to medical reasons.

### **Volunteering**

**2019**

- **Every Paw Counts:**
  - As a result of our work on the fundraising events we saw an increased amount of donations, due to the success of the indoor petting zoo event we were planning to make it a more regular event.
  - Through the planning and running of the event, interpersonal skills were improved such as time management, project management, event management and communication skills, enabled by the involvement with team members and customers.
- **Forces for Nature:**
  - Team clean-up sessions were often carried out to collect litter from around campus or local parks. Other events, such as tree planting, were held to help raise awareness for the environmental issues we all face.
  - As a result of the work carried out, we made people more aware of the impacts they can have on the environment and saw a reduction in the amount of litter found in parks and on campus.
  - Developed stronger teamwork skills and further developed time management and communication skills as a result of organising and coordinating the event and fellow team members.