



# Rhys Duff

SOFTWARE DEVELOPER

## Details

Edinburgh  
Scotland  
07795422756  
[purplemoonone@gmail.com](mailto:purplemoonone@gmail.com)

## Links

Portfolio Website  
DARE Academy  
Professional Project  
LinkedIn Profile

## Skills

Programming C++  
Graphics Programming (DirectX 12)  
Data Structures and Algorithms  
Applied Mathematics  
Debugging (Visual Studio, PIX)  
Software Development  
Communication Skills

## Hobbies

Programming  
Blender (3D Modelling)  
Films  
Video Games

## Languages

English - C2 (Native)  
French - A2

## Profile

Software Developer with 6 years of experience, including 2 years in the games industry. Proficient in C++, Direct X 12, and HLSL with expertise in graphics programming, rendering systems and debugging. Experienced in developing and optimising game engines and low-level rendering pipelines. Background includes implementing a C++/Direct X 12 game framework and integrating support for PlayStation 5.

## Education

### BSc (Hons) Computer Games Technology, University of Abertay Dundee, Dundee

SEPTEMBER 2019 – MAY 2023

Grade Achieved: First-Class (1:1)

Notable Grades Achieved:

- CMP418 - Programming Animation Systems: A+
- CMP400 - Honours Project Proposal and Execution: A+
- CMP303 - Network Systems for Game Development: A+
- CMP301 - Graphics Programming with Shaders: A
- CMP201 - Data Structures and Algorithms 1: A
- CMP202 - Data Structures and Algorithms 2: A
- CMP305 - Procedural Methods: A
- MAT301 - Mathematics and Artificial Intelligence, Unit 1: A
- CMP105 - Game Programming: A+

## Employment History

### Software Developer , 4J Studios , Dundee

OCTOBER 2023 – PRESENT

- Developed and maintained game systems in C++, with a focus on performance and scalability.
- Improved debugging skills in both C++ and HLSL, ensuring stable and optimized rendering pipelines.
- Implemented and integrated support for rendering middleware, enhancing engine capabilities and flexibility.

### Research Fellow, Abertay University, Edinburgh / Dundee

JULY 2023 – SEPTEMBER 2023

I contributed to the design and development of a proprietary framework for future Abertay undergraduates. My work focused on creating an abstracted Amplification and Meshlet shader pipeline, implemented with the DirectX 12 API. Additional contributions included:

- Integrating ENT T into the DirectX 12 and PS5 frameworks
- Developing an abstracted rendering API
- Enhancing the efficiency and robustness of the DirectX 12 heap allocator

### Customer Assistant, Tesco PLC, Dundee

JUNE 2022 – OCTOBER 2022

Friendly and approachable customer assistant with a proven ability to deliver excellent service in fast-paced retail environments. Skilled in handling customer inquiries, resolving issues with empathy, and ensuring a positive shopping experience. Experienced in maintaining store presentation, managing stock, and supporting smooth day-to-day operations. Strong communicator with a team-oriented mindset, consistently contributing to sales goals while building lasting customer relationships.

## **Online Shopper, Sainsburys PLC, Dundee**

OCTOBER 2018 – JUNE 2021

Organised and detail-oriented online shopper with experience fulfilling customer orders accurately and efficiently in a fast-paced retail environment. Skilled at selecting high-quality products, managing substitutions, and ensuring timely order preparation to meet customer expectations. Reliable team player with strong time-management skills and a focus on delivering excellent service through accuracy, speed, and attention to detail.

## **Extra-curricular activities**

### **DARE Academy, SnakeBride Software, Dundee**

JUNE 2022 – SEPTEMBER 2022

In the summer of 2022, I participated in Abertay University's DARE Academy game development competition, joining SnakeBride Software as a General Programmer/Producer, where I helped the team reach the finals.

As a General Programmer, I contributed to the development of:

- Procedural clouds, particle systems, and animated/shaded foliage
- Volumetric lighting and fog systems
- An interactive water shader

As a Producer, my responsibilities included:

- Breaking complex problems into manageable sub-tasks
- Leading daily 10–15 minute stand-up meetings
- Ensuring clear communication and team well-being throughout development

### **Treasurer, Abertay Game Development Society, Dundee**

SEPTEMBER 2019 – MAY 2020

As Treasurer of Abertay's Game Development Society, my responsibilities went beyond managing the society's budget and included:

- Overseeing student health and safety during game jam events
- Volunteering at the Global Game Jam 2020
- Assisting in securing guest speakers for society events

## **References**

### **Gareth Robinson from Abertay University Dundee**

g.robinson@abertay.ac.uk | 8235