

## Professional Profile

I am an Associate Lecturer at Falmouth University's Games Academy, teaching game engines such as Unity and Unreal, supervising year-long student game projects, and instructing MERN-based web development technologies. With a BSc(Hons) in Computing for Games and an MA in Entrepreneurship, I bring experience in both building games and web technologies. My expertise lies in both high-level and low-level programming languages and APIs, from level game stacks including C++, OpenGL and Unreal to MERN and docker based web development. I am passionate about utilizing my skill-set to push boundaries in network programming and graphical rendering, and I am constantly exploring new ways to improve my knowledge in these areas.

## Core Skills

**Game Development:** C++, Unreal Engine 4, OpenGL (GLSL), SDL2, CMake

**Full stack Web Development:** JavaScript, Node/Express, React, AWS ECS/ECR, MERN stack, Docker, Terraform

**Project Management & Management Tools:** Scrum, Agile, Git

## Qualifications

2019–2020	<b>MA Entrepreneurship</b>	<i>Falmouth University – Launch Pad</i>
2015–2018	<b>BSc (Hons) Computing for Games</b>	<i>Falmouth University – Games Academy</i>

## Projects and Experience

2021–PRESENT	<b>Associate Lecturer of Computing</b> <i>Falmouth University – Games Academy</i> As an Associate Lecturer at Falmouth University's Games Academy, I collaborate with other lecturers to develop computer science course materials. My primary teaching focus is on web development, leveraging my experience. Though, I also contribute to the teaching and supervision of Unity and Unreal projects. Additionally, I have helped in automating marking processes, which significantly reduces the workload for our department.
2022–PRESENT	<b>Graphics Engine and ProtoBuf Server</b> <i>Side Project</i> In my free time, I am expanding my knowledge in low-level technologies by developing a graphics engine using C++, CMake, and OpenGL for Linux-based operating systems. I have already implemented a normal mapped, physically-based rendering (PBR) system, with a method of loading models. And I plan to integrate this with another project of mine using C and Google's ProtoBuffers to create a multiplayer online mud with 3D visualizations.
2019–2020	<b>MA Entrepreneurship — Co-Founder and Full Stack Web Developer</b> <i>Falmouth University – Ramble Media LTD</i> During my masters, I developed skills in web development and was one of two developers responsible for creating and deploying an audio-based live-streaming platform for podcasters. With my experience in Linux, I handled the deployment side of the project, using Docker and Terraform to deploy the MERN web stack. I also integrated instances of MeetEcho's Janus media server, allowing users to call into web call-shows that we broadcasted through the Wowza platform. Our platform was hosted on AWS ECR using terraform and docker and attracted a dedicated user base.
2015–2018	<b>BSc (Hons) Computing for Games — Monq</b> <i>Falmouth University</i> During my degree, I developed many core skills and tools necessary for video game production. As part of the coursework-based structure of the course, I worked in several multidisciplinary teams, gaining valuable experience in communication with artists and other non-coder disciplines while collaborating on projects. My best example was a project called Monq, which was created in Unreal Engine. As a programmer, I implemented AI and puzzle mechanics for the game. I developed many skills including the use of blueprints, behaviour trees, and C++.
2015–2018	<b>BSc (Hons) Computing for Games — Graphics Module</b> <i>Falmouth University</i> I found the Graphics module the most fascinating part of my degree program. During this module, I created my first graphics engine using object-oriented C++ with OpenGL, allowing me to render a simple procedurally generated landscape with flat lighting. Through this project, I gained a strong understanding of the rendering pipeline and the maths behind computer graphics. I continued to tinker with graphics programming after the course, honing my skills in areas such as lighting/rendering methods, linear algebra and shader programming.