

Profile

An experienced, yet forward-thinking C# and Python developer, with an appetite for progression and great ambitions. Established organisational and professional skills as a department leader, with a reputation for transparency, insight, and robust, dependable implementations. Strong team ethos, cultural awareness, and analytical ability, with a love for challenging work and effective solutions. Proven communication and interpersonal skills. Keen interest in machine learning, virtual and augmented reality applications, data-driven autonomous systems, remote operations, logical problems, and researching new things.

Technical Skills

C#, JavaScript, React, UWP and Python	PyTorch, CUDA and Concurrent System Design
Git CLI Subversion Management and Bash Automation	Software Diagnostics and Prognosis
AWS, Google Cloud, Waitress and ASP.NET API Integrations	Unity Engine and Editor Scripting
UX and UI Design via CSS, WinAPI and Unity UI Elements	Pipeline Monitoring and Automation
Agile and Scrum Framework Integration and Leadership	Jira, Bitbucket and Confluence
Continuous Integrations and Deployment Management	Blender, Photoshop and Procreate

Relevant Experience

Lead Developer: Core Software Stack, Immersive Reality

May 2023 – Present

Working with web features with C#, ASP.NET and SQLite, for a locally hosted ecosystem on native hardware. Using Unity and UWP to drive interaction and visual presentation for projector-oriented immersive environment rooms, with low-level hardware integrations via COM-port connectivity. Integrating external Python processes for web data parsing, with PyTorch, CUDA, and on-site HPC scheduling using Bash and Powershell, as part of other projects. Coordinating external consultants on React and AWS projects, and advising on long and short-term business strategy. Example: worked with American reseller partners to build a demonstration environment at very short notice, to be presented to two state senators – all of which won an overseas sales contract worth £750k, or 1.01 million USD.

3D Developer / Kanban Team Leader: Planner Development, Wren Kitchens

April 2022 – May 2023

Managed Jenkins CI/CD schedules to deploy cross-platform codebase changes throughout the UK and USA. Continued to support internal artists, developers, and sales associates alike, using C# and Unity to assist with internal tooling and processing of AWS S3-mounted assets. Scoped and refined using Scrum and Agile techniques, managed and documented using Atlassian Jira and Confluence packages, to a standard of clarity and conciseness high enough that documents became part of employee training. Lead a team of two developers and three QA testers, and onboarded new members into standard process, assisting skill growth and domain knowledge transfer within staff, expanding internal resources.

Junior 3D Developer: Planner Development, Wren Kitchens

June 2021 – April 2022

Used C# with Unity and AWS integrations to produce feature implementations and bug fixes for internal stakeholders, with solutions demonstrated live within Scrum ceremonies to key stakeholders. Worked as part of a five-person development team, synchronising with Git CLI, and using Jira for prioritised issue management. Interfaced with asset development teams to examine workflow bottlenecks, increase efficiency and reduce project dependencies. Developed testing protocols for an internal Quality Assurance team, and assisted with proactive improvement of test-driven development (TDD) practices. Delivered retail-ready features, across Mac, Windows, HTC VR and distributed AWS-hosted EC2 rendering platforms.

Laboratory Assistant: University of Hull, Faculty of Science & Engineering

February 2018 – May 2021

Used C# scripting for Networking and Unity applications, deployment to remote devices such as the Hololens 2, Javascript and XML integration for front-end development, Git repository systems, and concurrent server APIs with test-driven development requirements. Assisted with preparation and fulfilment of practical lab sessions, leading students and colleagues through pursuing and providing applied technical development plans. Lead second year students in managing team projects for business-oriented specification and functionality implementation, whilst developing contemporary ethical understanding with respect to data handling. Monitored and assessed student progress on behalf of Lecturers, and guided many to success.

Education

BSC Computer Science: First Class with Honours, University of Hull

September 2016 – July 2020

Completed functional software assignments using C#, Unity, C++, Python, SciKit Learn, Prolog, Git, Javascript, HTML, XML, and WinUI, demonstrating capability towards independent study and understanding new and radical development concepts. Communicated effectively via written reports and group scrum meetings, and adapted to remote working by adopting agile development strategies. Focused on research and development for head-mounted displays, improving team workflows by leading when necessary, whilst developing room-scale simulations with facilities for remote control. Managed long-term schedules for multiple concurrent deliverables, learning to effectively use iterative development strategies to progress. Used subversion management via Git to maintain changelogs, track task completion and gauge progress throughout.

MSC Computer Science for Games Development, University of Hull

September 2020 – June 2021

Practised efficiency-oriented approaches to produce C++ and DirectX practical assignments, using GitHub for synchronising workflows around online code repositories, allowing for development from home. Repurposed C# software using Monogame libraries as part of an agile development team, using scrum frameworks and online Kanban tools to synchronise across a sprint-centric workflow. Used Git-based branching and pull requests to develop as a team.

Projects and Interests

Data Science, Machine Learning and AI

Leveraging a cross-codebase architecture with professional experience of C# and Python, against previous academic experience with data science and machine learning. Implemented vector-based, multi-dimensional structures for agent accuracy optimisation and parameter configuration, with multi-threaded parallelised training structures and event-driven automated testing. Identifying non-obvious predictable patterns across time series data, with augmentations from ascending orders of moving average interpolation, working back to root data elements for sequential prediction.

Graphic Design, Drawing, and Asset Creation

Produced poster graphic, three-dimensional model and merchandise designs for University societies and student union election campaigns, across Hull and York. Coordinated publicity and event marketing campaigns with local venue owners and organisers. Developed virtual environments for the Janus VR platform, using Source 2 and Unity.

Music and Audio Production

Experimented with physically-modelled VSTs, sample banks and simulated guitar effects to produce standalone music projects, and score various independent game titles. Released 3 EP collections via online music streaming services, gaining a small international audience. Producing new music, for local symphonic power metal band concepts and live performers, throughout a local network of professionals and hobbyists.

Cars and D.I.Y.

Working on such abstract projects, I admire the hands-on nature of any traditional shed-based hobby, and take care to keep such skills as sharp as I can – performing my own oil changes and electric maintenance on my daily driver, and making my own furniture from pieces I find abandoned, or have acquired for other purposes.