





Unreal Engine Developer (xR)

ABOUT

Dom is an Unreal Engine Developer working on xR (Extended Reality) technology for virtual production, broadcast and live events at disguise. He holds a PhD in Computer Science and Creative Technologies researching immersive mid-air music interaction with Imogen Heap's Mi.Mu Gloves project, and is an experienced researcher, designer and developer of xR products and experiences.



EXPERIENCE

2020 - Present Unreal Engine

Unreal Engine Developer (xR) disguise Technologies

Developing xR technologies for virtual production, live events and broadcast. Work involves:

- Research and development in cutting edge xR rendering technology and techniques on Innovate UK and EU Commission funded projects.
- Maintaining and developing core business technologies using Agile workflows.

UE4 / C++ / Rendering / XR / Virtual Production / DirectX / HLSL / CUDA / nDisplay / Agile / Mercurial

2019 - 2020

Unreal Engine Developer (AR/VR)

Holosphere VR

Design and development of immersive AR/VR enterprise experiences. Work involves:

- Designing and developing immersive tools and experiences for enterprise clients.
- Leading projects and liaising with clients.
- Research and development in immersive technology.

UE4 / Blueprints / C++ / VR/AR / CAVE systems / nDisplay / REST APIs / Perforce

2018 - 2019

New Talent Immersion Fellow

South West Creative Technology Network

Year-long research fellowship in immersive AR/VR technology. Work involved:

- Designing novel musical interactions for VR.
- Rapid prototyping in UE4 with Blueprints.
- Qualitative and quantitative user testing.
- Documenting and public sharing of design and development process.

Interaction Design / Virtual Reality / UE4 / Blueprints / FMOD

2015 - 2019 During PhD

Associate Lecturer in Music Technology

University of the West of England

Taught on two undergraduate software modules. Teaching content included:

- Digital signal processing, audio effects and synthesis techniques.
- Object-Oriented Programming, version control, UX/UI design.

Audio Processing / Software Development / C++ / UX / Git / MaxMSP

EDUCATION

2015 - 2019

PhD in Computer Science and Creative Technologies

University of the West of England

End-User Action-Sound Mapping Design for Mid-Air Music Performance.

HCI Research into user interaction and musical practice with the Mi.Mu Gloves. Work involved:

- Gestural, mid-air interaction design and research.
- Software development and data analysis in Python, C++ and NVivo.

Mid-Air Interaction / Digital Musical Instruments / Research / C++ / LaTeX

2012 - 2015

BSc (Hons) Creative Music Technology

University of the West of England

First Class. Focus on audio application design and development in C++ and Max/MSP. Digital Signal Processing / Software Development / C/C++ / MaxMSP