Thomas Ryan Scott CV

Software Developer with strong Unity/XR experience

Summary

Software Developer with +2 years working experience of XR, mobile and desktop application development using the Unity real-time development platform. Well versed in C#, and familiar with a broad gamut of coding languages. Entered the sector via a Software Development Master's Degree. I am hardworking, adaptable, creative and always eager to learn new things. I work well individually and within teams, with team leading experience in a previous sector.

Work Experience

Mixed Reality Application Developer at Immersonal

Rochester Building, 28 Adelaide St, Belfast (Remote) (September 2023 – February 2024)

Developing aspects of the Immersonal platform. As this was a transfer from Sentireal there is significant skill overlap from this previous role (see section below).

- Worked on a multiplatform hub for the Immersonal platform.
- This hub is a navigable 3d environment with intuitive diegetic UI targeting multiple VR headsets as well as mobile and desktop OSs.
- Collaborated with other to team members using a **modular**, package-based approach to ensure smooth **integration**.
- Prioritised writing clean, extendable and testable code.
- Wrote unit tests using in built Unity tools, NSubstitute etc.
- Sourced, modified and created assets such as 3d models and sprites, ensuring these
 were optimized appropriately for target platforms.

Mixed Reality Application Developer at Sentireal

Ormeau Baths, 18 Ormeau Avenue, Belfast (Remote) (January 2022 – September 2023)

Designed and programmed bespoke **VR applications** targeting various systems, both on an individual and team basis. Implementing a broad **range of functionality** such as interaction and navigation, app-flow, UI, collecting and persisting user data, physics simulation etc.

- Met with customers to elicit requirements, review progress, demonstrate work and acquire feedback and respond accordingly.
- Emphasised good **User Experience**, being mindful of user unfamiliarity with VR and utilising **diegetic UI** when appropriate.
- **Sourced, modified and created assets** including 3D models, animations, sprites and audio when content team otherwise engaged.
- Worked with a range of Unity's systems/tools such as the particle system,
 Shadergraph, the animation system and the lighting system, to enhance immersion and add realism to projects.
- Ensured projects **performed** well on target hardware.

Project Example 1 - VR training app for Civil Engineering students for local University

- This concerned a common lab procedure modelled with accurate deterministic
 physics the parameters of which could be modified. Students could record data and
 take snapshots within the experience and send this to their email accounts for
 assessment purposes.
- The final product received high praise from the client, who expressed desire for a phase 2 for the project given sufficient funding.

Project Example 2 - VR Training app for First responders / Fire service

 This was a multi-scenario experience for training and assessing first responders on how to deal with electric cars (EVs). Scenarios included the identification of EVs, how

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Software Skills

Languages

- C#
- Java
- JavaScript / JQuery
- PHP
- SQL
- CSS
- HTML

Coding Software / Tools

- Unity 3D Engine
- Visual Studio / Code
- Git / Gitlab
- Bitbucket
- phpMyAdmin / MySQL
- LAMP stack
- JSON

Other Software

- Microsoft Office
- Adobe Photoshop
- Gimp
- Blender
- Audacity
- DAWs e.g. Cubase

General Development Skills

- OOP programming
- Agile / Kanban
- Unit testing
- Acceptance Testing
- Exception handling
- Web API

to safely shut them down, spotting the signs of an EV fire and a **gamified fire fight** in which an EV fire must be correctly managed. Each scenario **tracked user metrics** for assessment purposes.

 The client was very happy with the outcome and approached the company for further work.

Team Leader of Serum Processing at Randox Laboratories

30 Randalstown Rd, Antrim BT41 4LF (13^{th} February $2017 - 17^{th}$ September 2020)

Planned and oversaw the serum manufacture department processes.

- Started as a lab-based operative and progressed into a team leader.
- Worked with the process improvement team to design, trial, validate and implement improvements to procedures.
- Trained and supervised staff on these procedures.
- Operated and monitored use of **complex lab equipment in safe and controlled manner**. Adhered to GMP, COSHH and other standards.

Other Work

Sales Assistant at B&M Bargains (2016-2017) Retail Assistant at Barnardos (2016) Administration Internship at Propertylink (2014)

Education

MSc Software Development, Queens University Belfast

Computer Science Building, 18 Malone Rd, Belfast BT9 6SB (September 17th 2020 – September 29th 2021)

Outcome: Pass with Distinction

- An intensive 1-year long industry focused conversion course for graduates from noncomputing backgrounds
- Covered a broad gamut of languages including Java and web technologies such as HTML, CSS, SQL, PHP, JavaScript.
- Coursework included a database modelled off a popular airline, a responsive database driven website for searching for YouTube reviews of music and a simple console-based game in Java.

Dissertation: 'VR Piano Calibration Prototype App Using Oculus Quest Hand Tracking SDK' (June 2021 – September 2021)

- Built a prototypal **piano training app** for the Oculus Quest 2.
- Developed in Unity using Oculus's Integration package SDK and its hand tracking API.
- Features included a **keyboard calibration process** in which users align a virtual keyboard to a real one, a **chord detection mode** and **chord lookup mode**.

BSc Honours Zoology, Queen's University Belfast

MBC, Lisburn Road, Belfast, BT9 7BL (September 2010- August 2013)

Outcome: 2.1.

- Course demanded skills ranging from mathematical, practical to analytical.
- Data collection and analysis; use of software such as Excel, R* and SPSS
- Performed a diverse range of lab procedures requiring precision and care.
- **Dissertation**: 'Pain or nociceptive reflex in crustaceans: are crabs distracted from responding to noxious stimuli'.

Hazelwood Integrated College

70 Whitewell Rd, Newtownabbey BT36 7ES (2002-2010)

Grades:

- A-levels; Biology A, Chemistry A, History A.
- As-Levels; Applied ICT-: A.
- *GCSE*: 5 A*, 4 A, 1 B.

Additional Skills

General skills

Hardworking – dedicated to tasks at hand and always keen to do my best.

Adaptable – enjoy encountering new problems to solve, learning new tools etc.

Creative – enjoy approaching things from unusual angles, experimenting with new ideas.

Generalist – in building full VR experiences, confident in coding a broad range of features.

Leader – in a previous sector have been a team leader, training and reviewing others.

Hobbies/Interests

- Playing guitar and bass
- Writing / recording music
- Drawing

Referees

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