Technical Skills

Languages: C++, C#, GLSL, Python

Tools: Unity, Visual Studio, Git, Perforce

Education

University College London (UCL) – BSc Computing Studies* – First-class Honours

Sep 2017 - Sep 2022

- Team leader on first and second-year projects, achieving a first in both
- Final project: C++ and OpenGL tool to create models from 2D images

Banbridge Academy - 5 A-Levels (A*A*AAB)

Sep 2015 - Jun 2017

- Mathematics, Further Mathematics, Software Systems, Physics, Biology
- Awarded for top results and achievement; self-taught Further Mathematics

Relevant Employment

Sports Interactive – Mid-Level Software Engineer (Unity, C#, C++, Console/PC)

Oct 2023 - Present

- Designed and coded new features by breaking them into tasks and took ownership of them, working collaboratively with technical and non-technical team members to gather requirements and communicate technical constraints
- Wrote unit tests to improve the reliability of our code and reduce bugs
- Supported other team members by writing tooling to improve workflow

Sports Interactive - Junior Software Engineer (Python, C++)

Aug 2021 – Sep 2023

• Expanded on and modified features as well as bug fixing on PC and console

Great Ormond Street Hospital NHS Foundation Trust – Software Engineer Intern

Jul 2019 – Sep 2019

- Developed an Android virtual pet augmented reality (AR) app for young patients using Unity
- Designed a visual scripting system using C# reflection that exports results to a DLL

UCL Institute of Child Health – Software Engineer Intern

Jun 2018 – Aug 2018

- Debugged and developed Unity games for cystic fibrosis devices
- Participated in stand-up meetings with Microsoft engineers and MSc students

Selected Projects

https://tiernanwatson.com X: @tiernanwatson

TombForge Game Engine (C++, OpenGL)

- Custom 3D engine capable of playing third-person levels with animations and physics
- Contains in-game editing, asset importing, saving/loading, collisions, debug rendering and more

URaider (Unity, C#, Gameplay, HDRP)

- Framework that allows the development of Tomb Raider levels by providing gameplay in a state machine and other mechanics such as the inventory system, as well as saving and loading
- Designed systems for rope-swinging (custom animations) and ledge targeting using physics knowledge

2178: Resistance (Unity, C#, Gameplay, Rising Star Finalist Entry)

Third-person shooter prototype entry for Rising Star with high scoring in C++ assessment

Portals (Unity, C#)

Replicated the portal effect from Valve's Portal game

Activities

Hackathons: UCL PixelJam Gaming (2017), Search for a Rising Star (Finalist) (2019), Search for a Star (Finalist) (2020) **School:** Programming Tutor (19/20), Technology Society, School Prefect (2016 – 2017), Python Tutor (2016)

^{*} Same course and standard as Computer Science. Naming difference due to extenuating circumstances - happy to discuss.