NAT WATERWORTH

Unity Developer / Software Developer

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https://natwaterworth.github.io/

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https://github.com/NatWaterworth/

SUMMARY

A highly skilled C# and Unity Developer with a strong background in automation, synthetic dataset generation, and tool creation. Passionate about creating efficient tools, solving complex technical challenges, and optimizing workflows for scalable solutions. Experienced in designing high-fidelity document rendering systems, automation pipelines, and advanced annotation tools for AI-driven applications. Always eager to learn, adapt, and push the boundaries of technology.

EXPERIENCE

UNITY DEVELOPER / C# — 2021- 2025

Mindtech Global — Sheffield, UK

- Developed a photorealistic document generation system in Unity HDRP for AI dataset training

- Engineered an automated annotation system ensuring pixel-perfect accuracy for ML training

- Built a scalable SVG import pipeline, integrating complex document structures into Unity

- Implemented realistic text deformations to simulate document wear, improving AI robustness

- Optimized the Chameleon AM pipeline, improving Tech Artist efficiency and automation of asset processing.

UNITY DEVELOPER & PROJECT LEAD / C# — 2019-2020

Indie-Shark Games — Huddersfield, UK

- Developed a game prototype on a structured timeline – Managed development cycles efficiently to ensure smooth progress and timely milestones.

- Led gameplay mechanics & UI development – Focused on creating engaging and intuitive player interactions.

- Presented at festivals & competitions – Showcased "Project: Outbreak" at Tranzfuser 2020 and Yorkshire Games Festival 2020, engaging with industry professionals and potential investors.

- Worked on publisher discussions & funding pitches – Actively contributed to business discussions, helping the team navigate funding opportunities, potential partnerships and securing investment from Santander.

EDUCATION

BSc in Computer Science & Games Programming (1st) — 2017-2021

University of Huddersfield — Huddersfield, UK

- Achieved First-Class Honours, specializing in game development, mathematics, alogirthms, software engineering, and AI.

- Developed a strong foundation in C#, C++, and software architecture, applying knowledge to real-world game and tool development.

- Final Year Project: Researched and implemented NPC optimization using genetic algorithms in C# (Unity) and Python, improving AI behavior and efficiency in game environments.

REFERENCES

Available on request.

ACHIEVEMENTS

Sole Developer - Document Generator - 2021 - 2025

Developed a Unity-based synthetic dataset pipeline for high-fidelity document rendering, used to enhance machine learning and OCR model training.

Best Team Award – Game Republic Student Showcase 2021

Project: "Bind & Banish" – Led Indie-Shark Games to Best Team award, serving as Team Leader & Programmer.

Finalist – Search For A Star 2021 (Programming)

Reached the Grads in Games Search For A Star Competition Finals with project "Hackerman".

Finalist – Tranzfuser 2020

Project: "Project: Outbreak" – Represented Indie-Shark Games, pitching to investors in the finals of Tranzfuser a Game development funding competition.

Worked on game mechanics, UI, and project planning, ensuring a polished and engaging experience.

Best Student - 2nd Year University of Huddersfield - 2019

Games Showcase 2019 Winner of Best Student Award in Computer Science with Games Programming

SKILLS

Programming Languages:

C#, Python, HTML, Javascript, CSS/HTML, C++

Game Engines:

Unity (HDRP, URP), Unreal Engine

Frameworks:

ASP.NET Core, Entity Framework Core, React.js, OpenCV, DirectX, TensorFlow, PyTorch

Development Tools:

Azure DevOps, Visual Studio, Git, Fork, GitHub Desktop, Trello

3D & Design Software:

Blender, Adobe Photoshop, Adobe Illustrator, Inkscape