NAT WATERWORTH

Unity Developer / Software Developer

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https://natwaterworth.github.io/

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https://github.com/NatWaterworth/

SUMMARY

Unity and C# Developer with strong experience in automation, synthetic data generation, and creative tool development. 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.

- Built strong practical expertise 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