

STEVEN HALLIWELL

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CURRENT EDUCATION

BSc (Hons) Games Design, University of Greater Manchester *2021 – Present (Part-Time)*

- Specialising in systems architecture, visual scripting, and gameplay telemetry within Unreal Engine.
- Final year research paper on Cognitive-Mechanical Interference in 2.5D platformers, examining how control complexity affects player performance and cognition.
- Academic portfolio of 8 projects across module submissions, spanning platformers, serious games, level design, and narrative systems (Unreal Engine, Unity, Maya).

PROFESSIONAL PROFILE

Technical Designer with a BSc in Games Design and over 15 years of prior professional experience in digital forensics, systems investigation, and hardware engineering. That background is not incidental. Twelve years as a police officer, including building and running a Mobile Data Examination Unit, trained a way of thinking about procedures, logic, edge cases, and documentation that carries directly into game systems work.

TECHNICAL & DESIGN SKILLS

Game Engines: Unreal Engine (Blueprints, Systems Implementation, UI/UX, Telemetry), Unity

Technical Design: Systems Design, Visual Scripting, Gameplay Mechanics, Rapid Prototyping, Debugging, Technical Documentation

Data & Logic: Data Tables, Structs, Enums, SQL, Data Structures, Logic Structuring, Performance Profiling

Serious Game Design: Training Simulation, Procedural Authenticity, SDT-informed Design, MDA Framework, Game Psychology

Hardware & IT: Component-level Troubleshooting, Mobile Device Architecture, Digital Forensics, Systems Integration

PORTFOLIO & ACADEMIC PROJECTS

“Supernaturally” – 2.5D Masocore Platformer - Unreal Engine • Academic Module Project • Technical Designer / Solo Developer

- Originated from “The Winchester Protocol”, a research module testbed used to prototype and validate the core mechanics before full development began on Supernaturally.
- Architected and programmed all core gameplay systems for a brutally unforgiving 2.5D side-scroller featuring a unique pivot-axis movement mechanic.
- Implemented a data-driven architecture using Blueprints, Data Tables, Structs, and Enums, allowing rapid iteration without touching code.
- Built custom telemetry tools to automatically capture and export player death metrics to Excel, directly informing level design balancing decisions.

“The Long View” – Serious Game / Resource Simulation - Unreal Engine • Academic Module Project • Technical Designer / Solo Developer

- Built time and resource management systems simulating project management pressure and developer burnout over a 28-day cycle.
- Programmed interacting resource mechanics balancing task-completion targets against well-being stats across eating, sleep, and burnout.
- Implemented diegetic UI so all feedback was delivered through the game world itself, with no stat bars or HUD.

Undergraduate Research

- Cognitive-Mechanical Interference in 2.5D Platformers: final year research paper examining how control complexity and input demand affect player cognition, performance, and frustration tolerance. N=12 counterbalanced within-subjects experiment.

PROFESSIONAL EXPERIENCE

Founder / Director

2018 – 2021

Phoella Ltd

- Founded and operated a hardware technology business specialising in intricate diagnostic repair of mobile devices.
- Applied forensic-level troubleshooting to resolve hardware-software conflicts at component level.
- Managed all client relationships, project scoping, supply chains, and technical documentation.

Digital Forensic Examiner & Specialist Technical Officer

Jan 2006 – 2018

Greater Manchester Police

Digital Forensic Examiner, Mobile Data Examination Unit

- Instrumental in creating and launching the Mobile Data Examination Unit (MDEU) from scratch, including designing the operational workflow and procedural framework.
- Forensically examined over 2,000 mobile devices (SIM cards, memory cards, tablets) to extract critical digital evidence under strict procedural constraints.
- Developed and negotiated procedural policies with senior management, producing technical documentation and securing stakeholder sign-off.
- Worked on high-profile cases including the murders of PCs Hughes and Bone.
- Self-taught SQL to advance data-mining capabilities.

Specialist Technical Officer, Bolton Divisional HQ

- Managed specialised technical deployments including CCTV recovery and mobile data examinations.
- Installed and maintained covert recording systems in unsecured environments, requiring precision and strict protocol adherence.
- Covert surveillance trained

Data Analyst

Sept 2003 – Jan 2006

Bolton Council

- Analysed business patterns, call data usage, and personnel data across the council's call centres, producing reports for senior management.

PRIOR EDUCATION

BSc (Hons) Information Technology (2:2) - University of Salford

June 2003

BSc Physics with Space Technology - University of Salford

June 1999

Foundation Degree in Physics - University of Salford

June 1994

8 GCSEs Grade C and Above

PROFESSIONAL CERTIFICATIONS

- UFED Intermediate Certification, Cellebrite (February 2014)
- XRY and XACT Certification, Micro Systemation (January 2014)
- NCASE & FTK Introductions (December 2014)