

Robert Hoffmann



Senior Game Engineer

Specialized in real-time systems, gameplay, and rendering.

Extensive experience with Unreal Engine and C++ across AAA titles, tools, and simulation systems, with contributions to Spec Ops: The Line, Dreadnought and Steel Hunters.

Project Highlights (more detail on my Website)

2023–2025 Steel Hunters (DPS Games, UE5) Senior Graphics Programmer

- Advanced water system and materials (flow, foam, caustics, waves)
- Environment painting tool for in-editor painting tint, lighting, fog, and water geometry directly on the landscape
- Porting the project from Unreal Engine 4 to Unreal Engine 5

2021–2023 Tomorrow Falls (DPS Games, UE4) Senior Graphics Programmer

- Advanced shader and rendering systems
- Water, foliage, character and environment shaders
- Rendering framework and optimization

2019–2020 Point Cloud Kit (UE4) Freelancer

- Shader-driven animation of point position and color
- GPU-based rendering for high point counts
- Velocity calculation using per-point history for physically inspired motion and interaction
- Epic Marketplace ~100 download a day over 3 years

2012–2018 Dreadnought (Yager Development, UE4) Game Engineer

- Core ship movement system (physics-based)
- Networked weapon systems
- Damage visualization (hit-mask system)
- Multiplayer performance optimization

Contact

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Skills

- Unreal Engine (C++ | BP)
- Gameplay & Engine Systems
- Graphics / Rendering / Shaders
- VFX / Physics / Tools
- Rider / Visual Studio / AI-assisted workflows

Education

- Diploma in Computer Science (1995-2000)
- Chemical Laboratory Technician (1990-1994 Apprenticeship)

2007–2012 Spec Ops: The Line (Yager Development, UE3)
Graphics / Gameplay Programmer

- Sandstorm and post-processing systems
- Hybrid reflection rendering
- Decal system and gameplay features

Full Career

2026–Present – The Construct – Indie-Dev, UE5

- Prototyping / Spaceship combat / UMG / MetaSounds / PCG

2023–2025 – Steel Hunters – DPS-Game, UE5

- Shader / Tools / Porting (to UE5)

2021–2023 – Tomorrow Falls – DPS-Games, UE4

- Shader / Tools / VFX-Systems (Character, Environment)

2020–2021 – Real Time Strategy Game – Wargaming-Berlin, UE4

- HUD / Gameplay / VFX-Systems (Fog of War, Environment)

2019–2020 – Simulation – Tele-Driving – Vay

- UE4 / Unity / CARLA

2019–2020 – Point Cloud Plugin (UE4)

- GPU-based point rendering / UE4 / Epic Marketplace

2019–2020 – LiDAR Plugin (RealSyth – UE4)

- Simulation for AI training (ROS integration)

2017–2018 – 2048 Apex (Android)

- Mobile game development

2012–2017 – Dreadnought (Yager-Development, UE4)

- VFX / Gameplay / Input-Movement / Network

2007–2008 – Spec Ops: The Line (Yager-Development, UE3)

- VFX-Systems (PP, Decal, HUD) / Gameplay

2003–2007 – Ganymed Engine / Virtools (ITnB-Development, DirectX)

- Co-founder / Shader-Demo / Physics-Engine

2001–2002 – Michael Schumacher Kart Racer 202 (Terratools, Virtools)

- Vehicle-Physics / Gameplay / AI