

SUMMARY

Senior Gameplay Engineer with 9+ years of professional experience developing games and interactive applications using Unity and C#. Specialized in gameplay systems, VR development, multiplayer experiences, and building scalable solutions from prototype to production.

Throughout my career, I have worked across mobile, PC, VR, AR, and multiplayer projects, taking ownership of complex features including gameplay mechanics, player systems, UI frameworks, networking solutions, backend integrations, and performance optimization. Experienced in leading engineering teams, designing technical solutions, conducting code reviews, and collaborating with designers and artists to transform creative ideas into polished player experiences.

Strong background in Unity engineering with hands-on experience across DOTS (ECS), Netcode for Entities, Unity Gaming Services, Meta SDK, Ready Player Me, FMOD, UI Toolkit, cloud-hosted multiplayer infrastructure, and backend development using Node.js and MongoDB. Comfortable learning new technologies, solving complex technical challenges, and building maintainable systems that support long-term development.

Holds a Master's degree in Game Design from Uppsala University, combining technical expertise with knowledge of player experience, game mechanics, and design principles.

EXPERIENCE

07/2023 - 04/2026

Senior Unity Developer

Highstreet ↗

- Led a team of engineers in the development and release of Highstreet: Calamity, a multiplayer VR title for the Meta Quest platform.
- Defined and implemented core gameplay architecture, building scalable and maintainable systems for VR locomotion, combat, player interaction, inventory, progression, and interactive 3D UI.
- Developed high-performance multiplayer gameplay using Unity DOTS (ECS) and Netcode for Entities, contributing to the game's networking architecture and server-authoritative gameplay systems.
- Designed and implemented backend services using Node.js and MongoDB, developing APIs and game services that supported multiplayer functionality, player data, and live operations.
- Managed dedicated server infrastructure and release workflows, including game and server deployments, version management, production and development environments, and migration from Unity Multiplay to GameLift AWS-hosted infrastructure.
- Owned the project's GitHub repository, performed code reviews, established coding standards, and promoted clean architecture, maintainable code, and engineering best practices across the team.
- Worked closely with designers, artists, QA, and production throughout development, providing technical guidance, evaluating feature feasibility, and transforming gameplay concepts into robust technical solutions.
- Integrated and maintained third-party SDKs and online services including Meta Platform SDK, Unity Gaming Services, Ready Player Me, and FMOD to support authentication, social features, avatars, audio, and online gameplay.
- Optimized gameplay systems through profiling, debugging, and performance analysis to ensure smooth execution across standalone VR hardware.
- Participated in technical planning and system design with senior engineers, helping define the architecture and long-term direction of core gameplay systems.
- Partnered with game designers to prototype mechanics, identify technical constraints early, and iterate on gameplay systems to balance player experience with implementation feasibility.

11/2021 - 05/2023

Unity Developer

Dephion B.V.

- Maintained and enhanced the Habtic mobile application by fixing bugs, implementing new features, and improving overall functionality and user experience.
- Designed and developed interactive mini-games within the app to increase user engagement and provide additional gameplay experiences.
- Implemented user interface systems using Unity's UI Toolkit, creating responsive and maintainable interfaces aligned with product requirements.
- Performed application testing, debugging, and quality improvements to identify issues and ensure a smooth user experience across target devices.
- Collaborated with designers and the development team to translate product ideas into polished Unity features and interactive experiences.
- Worked with 3D characters, animations, and interactive content systems to create engaging user experiences within the application.

03/2021 - 07/2021

Freelance (Contract) Unity Developer

Dephion B.V.

- Independently developed a prototype procedural animation system for creating natural character gestures and body movements during conversations.
- Designed and implemented runtime animation logic to make virtual characters respond more naturally while speaking with users, improving realism and immersion.
- Integrated animator-provided animation assets with procedural systems to generate dynamic gesture variations based on conversational context.
- Explored and evaluated different animation approaches to improve the expressiveness and natural movement of digital characters.
- Worked closely with designers to translate interaction requirements into technical solutions and refine character behavior based on user experience goals.

03/2018 - 09/2020

Lead Gameplay Developer

KandooZ Studio

- Co-founded and worked as a Unity Developer in a small game development team delivering freelance VR, AR, and mobile game projects for clients.
- Developed gameplay mechanics, AI systems, user interfaces, and interactive experiences using C# and Unity across multiple platforms.
- Took ownership of individual projects and features, handling development from prototyping and implementation through testing and delivery.
- Created VR and AR experiences including gameplay systems, player interactions, and immersive environments while adapting solutions to different hardware platforms.
- Contributed to gameplay and level design decisions, helping transform creative concepts into technically feasible and engaging experiences.
- Collaborated directly with clients, designers, and artists to understand requirements, iterate on features, and deliver project milestones.

08/2017 - 03/2018

Junior Game Developer

Appsinnovate 

- Developed gameplay mechanics, AI behaviors, UI systems, and augmented reality experiences using C# and Unity across mobile, PC, and AR projects.
- Built and refined interactive features while improving gameplay quality, stability, and overall user experience.
- Collaborated with designers and developers on gameplay and level design, helping shape engaging environments and interactive experiences.
- Worked on client-focused projects, adapting technical solutions to meet different product requirements and platform constraints.
- Gained experience across multiple game genres and applications, including educational games, training simulations, AR experiences, and interactive installations.

EDUCATION

09/2019 - 07/2021	Game Design ↗ Uppsala University Campus Gotland Master of Arts
10/2016 - 06/2017	Game Development Track Information and Technology Institute (ITI) 9-Month Diploma
07/2014	Electronics and Communications Engineering Arab Academy for Science, Technology, and Maritime Transport Bachelor of Science

SKILLS

Unity Engine (2D/3D, Mobile, VR, AR)	Expert	GitHub Actions (Working Knowledge)
C# Programming	Expert	Multiplayer Game Development
Unity DOTS / ECS Architecture	Expert	Netcode for Entities
Unity Addressables		Client-Server Architecture
VR/AR Development	Expert	Backend Development (Node.js)
Mobile Game Development	Expert	REST API Integration
Rapid Prototyping		MongoDB
Feature Ownership from Concept to Deployment		Dedicated Server Deployment & Management
Collaboration with Designers, Artists, and QA Teams		Cloud Hosting Infrastructure (Unity Multiplay, AWS)
Software Architecture & System Design		Online Services Integration
Design Patterns		Game Design & Technical Design
Code Reviews		Animation Systems & Character Integration
Clean Code Practices		UI Development (uGUI & UI Toolkit)
Performance Profiling & Optimization		AI Systems & Interactive Behaviors
Debugging & Troubleshooting		Physics-Based Gameplay Systems
Technical Documentation		Character Controllers & Locomotion Systems
Agile Development (Scrum/Kanban)		Game Mechanics Development
Cross-functional Collaboration		Gameplay Programming & Systems Design
Unity Gaming Services		
Meta XR SDK / Platform SDK		
FMOD Audio Integration		
Git & GitHub		

PROJECTS

Highstreet: Calamity - Highstreet

Meta store link ↗

Project Lilly (Prototype) - KandooZ Studio

Video link ↗

VR Reaction Testing Applications - KandooZ Studio

Developed VR applications for evaluating reaction times in sports scenarios.

AR Mini Games (Vuforia SDK) - KandooZ Studio

Developed multiple AR experiences for Trimoo and ADabisc Future Qatar.

VStore VR Cardboard - KandooZ Studio

Mobile VR cardboard experience for client.

EdVRd Educational VR - KandooZ Studio

Video link ↗

Educational VR experience for Warpin Media.

VR Racing (Steam) - KandooZ Studio

Steam link ↗

VR racing experience for Pure Gamez.

Nissan Automech Egypt AR Application - AppsInnovate

Developed an augmented reality experience for Nissan Egypt's 2017 event.

Agents Training Game (STC Saudi Arabia) - AppsInnovate

Developed a training-focused game experience for enterprise use.

City of Dreams: Financial Literacy (Visa) - AppsInnovate

Developed an educational mobile game published on Google Play, focused on teaching financial concepts through interactive gameplay.

"Lord of the Nerds": VR (Oculus Rift/HTC VIVE) - ITI

Video link ↗

Graduation Project for ITI

Game of Life in 2D using Unity.

Video link ↗

Game of Life in 3D using Unity.

Video link ↗

Various game projects for university courses. (2D platformer and boardgame)

Various Freelance projects from VR/AR to Mobile (NDA signed)

Hex-Grid Builder - Personal project

Video link ↗

Gomoku AI

Video link ↗

VR portals - Gamejam 2018

Video link ↗