

Alex Hajdu

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Summary

Unreal Engine generalist with 10+ years of experience in C++ development, gameplay systems, UI, networking, and performance optimization. Skilled in software architecture, creating productivity tools, editor plugins, and integrating third-party systems. Passionate about R&D and solving complex technical challenges.

Core Skills

- Engines and Platforms: Unreal Engine 5 (UE5), Unreal Engine 4 (UE4), Unity, VR/AR/MR, HoloLens 2, Windows Mixed Reality, nDisplay, iOS, Android
- Languages and Scripting: C++, C#, Objective C, Blueprint, Python, Lua, PowerShell
- Tools and Systems: Editor plugins, Engine source modifications, Slate, UMG, PlayFab, gRPC, Azure, Qt, Dear ImGui, CMake, Premake
- Testing and Automation: Gauntlet Automation Framework, Google Test
- Performance and Profiling: CPU and GPU optimization, packaging, asset management
- Source Control and Workflow: Git, Perforce, SVN, Agile, Jira, Asana, Wrike
- Rendering and Audio: Lighting, Particles, Postprocessing, Sequencer, FMOD
- IDEs and Utilities: Visual Studio, Xcode, CLion, Qt, Rider, Postman

Professional Experience

Senior C++ Unreal Engine Developer, PortalOne (Contract, b2b) – Sep 2022 – Nov 2025

- Implemented C++ systems and Blueprint modules for a hybrid games platform.
- Modified Unreal Engine source to support project-specific requirements.
- Built editor plugins and internal tools to accelerate developer workflows.

- Created an in-app purchases plugin enabling monetization on iOS and Android.
- Defined software architecture across modules; performed code reviews.
- Drove performance optimization across CPU and GPU hot paths.
- Integrated services and tooling including PlayFab, gRPC, and Azure.
- Established and maintained automated testing with the Gauntlet Automation Framework.
- Provided non-technical support, QA collaboration, and art pipeline assistance.

Software Engineer (C++), Happy Finish / Microsoft – Apr 2021 – Jul 2021

- Developed Service Manager UX as an Unreal Engine editor tool (UE4) in C++.
- Built runtime Platform UX using UX Tools and integrated with Microsoft Mesh.
- Implemented communication layer between editor tooling, runtime, and Mesh services.
- Collaborated closely with Microsoft engineers; conducted code reviews.
- Technologies: C++, UE4, HoloLens 2, PowerShell, Git.

Software Engineer (C++), Dark Slope Studios (Contract, b2b) – Dec 2020 – Oct 2022

- Delivered C++ features for XR applications with focus on systems reliability.
- Researched and implemented runtime full-body pose recording in VR.
- Leveraged Gauntlet Automation Framework and PowerShell to support automated workflows.
- Tools: C++, UE testing, Git, Perforce.

Software Engineer (C++), Geodesic Games / Epic Games – Sep 2020 – Nov 2020

- Contributed C++ features and consultancy for nDisplay and Previz projects.
- Integrated libMVRgdt into existing codebases and supported test coverage.
- Tools: Google Test, Unreal Engine testing suite, Git, Perforce.

Software Engineer (C++), Chaos Group – Jun 2019 – Jun 2020

- Implemented Corona Renderer integration for ARCHICAD, progressing from alpha toward commercial readiness.
- Integrated features from the renderer core; delivered daily builds and conducted code reviews.
- Collaborated with the ARCHICAD community; provided support for the plugin.
- Tools: C++, Python, Lua, Premake, CMake, Google Test, Git.

Selected Earlier Experience (2015 – 2019)

- CTO, WeMakeGames — Aug 2017 - Mar 2019
Led team for Castle Heroes (iOS/Android); owned architecture, gameplay, networking, and optimization. Managed planning, reviews, mentoring, and project delivery. Tech: Unreal Engine, C++, Git/SVN.
- Senior Unity/Unreal/XR Developer, Inloopx by AVAST — Dec 2015 - Jul 2017
Built AR/VR prototypes and apps for clients including Skoda, Mercedes Daimler, Sygic, Nestle, Slovak Telekom, Samsung, and OPEC. Supported presales estimates, interviews, and client communication. Tech: Unity, UE, C++, C#, Objective C, Git/SVN, HoloLens, Gear VR, HTC Vive.
- Software Engineer (C++/UE), AEG and Electrolux — Dec 2017 - Feb 2018
Maintained and enhanced VR interactive presentations; implemented interactions and movement systems. Tech: Unreal Engine, C++/Blueprints, SVN, VR, Windows Mixed Reality.
- Software Engineer (C++/UE), Cellense/Exponea — Sep 2018 - Dec 2018
Built an Unreal Engine plugin integrating analytics SDK (C++/Blueprints). Tech: UE, C++, Git.
- Software Engineer (C# Unity), EA Chillingo / AboutFun — May 2015 - Dec 2015
Shipped GUI features and backend tasks for WarFriends (iOS/Android). Tech: Unity, C#.
- Founder and Software Engineer, Mr.Fox and friends — Jan 2017 - Feb 2018
Created AmblyoVR (VR therapy app); implemented VR environment, treatment activities, and stereo rendering. Built a websocket-driven dashboard customization; optimized PC and mobile builds.
- Independent Plugins (Unreal Engine)
Fix This! (UE4 editor plugin): Project management integration with Trello, Assembla, and Jira.
What's My Public IP (UE plugin): Utility to fetch public IP.

Education

University of Transport and Communications — Faculty of Applied Mathematics and Informatics

Community and Leadership

Founder and organizer, Unreal Engine User Group Slovakia (#unrealUGSK)

- Run regular meetups; active community with 100+ Discord members.