Artūras Varkalis

Unreal Engine Game Developer
Gameplay, multiplayer, technical audio and production tools
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Profile

Unreal Engine developer with 6+ years of experience across gameplay, multiplayer, UI and technical audio, working in C++ and Blueprints. I take ownership of game systems from technical design through implementation, integration, testing and delivery. I also design production tools and AI-assisted workflows for implementing features, reviewing code and automating builds and tests.

Core skills

Programming: Unreal Engine 4 and 5, C++, Blueprints and Lua.
Gameplay and multiplayer: Gameplay Ability System (GAS), replication, game frameworks, UI, Epic Online Services (EOS) and Steam SDK.
Audio and VFX: MetaSounds, Quartz, FMOD, Reaper, Ableton, sound design, spatial audio and Niagara.
Production: Git, SVN, ClickUp, builds, QA, documentation and team handoff.
AI development workflows: Tool and workflow design, technical specifications and implementation planning, and coordination of coding and review agents across multiple models.
AI integration and validation: Giving agents access to Unreal Engine source code to reduce hallucinations, automating builds and tests to validate generated code, and conducting AI-assisted multiplayer playtesting.

Professional projects

Amethyst

Sole Programmer and Technical Lead · Contractor · UE4 and UE5 · 5+ years

Competitive turn-based tactics game developed by a five-person team.
- Owned gameplay, UI, networking, audio, Steam integration, builds and QA.
- Developed turn-based combat, hero abilities, status effects, inventory and replicated match flow.
- Integrated Steam matchmaking ratings and leaderboards, supported Windows and macOS builds, and fixed an Unreal Engine source issue.

Katana Inu

Systems Programmer · Contractor · UE4 · Approximately 2.5 to 3 years

Multiplayer battle royale project.
- Implemented GAS features and debugged replication, prediction and gameplay feedback.
- Integrated EOS social features and FMOD audio, and developed menus and multiplayer UI.
- Managed two audio designers, documented implementation workflows and onboarded four team members.

Tempo Punk

Audio Systems Architect and Game Core Programmer · Matima Studio co-founder · UE5 · Ongoing

Rhythm FPS project.
- Built core game systems and a C++ rhythm subsystem using Quartz for beat timing and synchronization.
- Developed procedural music systems with MetaSounds, alongside sound design, mixing and spatial audio.
- Created Reaper beat-chart export, music debugging and capture tools, and documentation for external producers.

Professional projects

Karyn

Audio and Dialog Systems Programmer · Contractor · UE4 · Approximately 1 year

Action-adventure platformer project.

- Developed data-driven dialogue, priority and interruption handling, facial-animation playback and adaptive music.
- Built a Reaper/Lua export pipeline that generated Unreal DataTables for voice production, replacing manual data entry and documenting the workflow for non-programmers.
- Supported gameplay systems and the UE4.23 to UE4.27 migration, including API fixes and memory improvements.

AyeZee Game Arena

Application Framework Developer and Audio Designer · Contractor · UE4

Interactive broadcast application delivered by a five-person team in approximately one month.

- Built a dual-window framework with a broadcast view, operator control panel and routing across seven mini-games.
- Developed runtime texture importing, configuration tools, diagnostics and UI, alongside the application's sound design.

Psyker

Generalist Developer · Contractor · UE4 · Approximately 5 weeks

Cyberpunk fighting-game vertical slice.

- Developed the project framework, 2.5D movement and cinematic-to-gameplay transitions; contributed Niagara VFX and sound design.
- Delivered a trailer-ready vertical slice with the contractor team in approximately five weeks.

V1RAL

Audio, Narrative and Level Design Generalist · Matima Studio co-founder · UE4

Boomer shooter project.

- Developed Blueprint audio systems, sound occlusion, spatial audio and more than 50 sound effects.
- Contributed narrative, campaign and level design, gameplay prototypes, trailer capture and composer coordination.

AI-assisted game development & tooling

AI-assisted game development & tooling

Game developer and tool designer · Personal R&D · 2026–present

Designed tools and workflows for applying AI coding agents to Unreal game development. Defined requirements, directed AI-generated implementation and evaluated results through independent AI review, tests and playtesting.

GameCodeGolem: Designed a toolkit that enables AI coding agents to better read Unreal Engine source code, helping prevent invented functions and incorrect assumptions about how the engine works. Also automates game builds and tests.

VibeSlice: Designed a multi-model workflow system for AI-assisted software development, game development and design work. Coordinates AI agents through specifications, planning, implementation, independent review and verification, with human approval at key stages.

ProjectOmega: Designed an experimental ai-first UE5 co-op game framework and its game design document. Used AI agents for all implementation code, evaluating the resulting features in packaged multiplayer builds and using those findings to improve the development tools.

Languages

Lithuanian native · English fluent · Russian intermediate