

Pham Ba Oai

Unreal Engine C++ Developer

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Junior Unreal Engine Developer with 2+ years of C++ experience, specializing in multiplayer gameplay, dedicated server architecture, and cross-platform systems (PC/Mobile). Proficient with GAS, Replication Graph, network optimization, and Editor tools. Experienced in working across Design, Art, and QA to deliver scalable, high-performance game systems.

TECHNICAL SKILLS

- **Core Gameplay & GAS:** Experience with GAS (Multiplayer/Prediction aspects), Enhanced Input System; Understanding of Memory Management & Async/Multithreading concepts.
- **Multiplayer & Networking:** Understanding of Client-Server/Dedicated Server architecture; Experience with UE Replication (Actor/Component, RPCs) & basic GAS networking; Familiarity with Prediction/Reconciliation, Lag Compensation, and Server-Authoritative Design principles.
- **Cross-Platform:** PC (Windows/Linux) & Mobile (iOS/Android) development experience; EOS/Steamworks SDK feature integration (Matchmaking, Achievements, etc.). Proficient with Animation Blueprints & State Machines; Experience with Control Rig; Familiarity with Motion Matching/Trajectory concepts.
- **Tools & Performance:** Developed basic Editor Utilities (C++/Slate/UMG) & Python automation scripts; Assisted in Build/Cook optimization; Basic experience with Unreal Insights for performance profiling.
- **Development Practices:** Application of Clean Code principles, Design Patterns, Technical Documentation, Code Reviews.
- Experience in Agile/Scrum environments; Collaborated closely with Game Designers, Artists, and QA to ensure seamless integration of gameplay features, mechanics, and visual assets.

WORK EXPERIENCE

Junior Unreal Engine 5 & C++ Developer

12/2022 - 05/2025

NMB TECHNOLOGY AND SOLUTION JOINT STOCK COMPANY

- Contributed to the technical development of Planet Sandbox Remake, focusing on high-performance multiplayer, server, and cross-platform systems:
- Developed Dedicated Server features (UE5 C++) and implemented core server logic (e.g., player state sync, inventory management, interactor systems, movement prediction,...) for multiplayer games supporting 100 concurrent players; assisted in EOS SDK integration (voice chat, cross-platform sessions).
- Implemented complex gameplay features and contributed to network system optimization by applying knowledge of Replication Graph, custom network serialization, lag compensation, server-side hit validation, and advanced animation/transform replication (e.g., motion warping).
- Implemented cross-platform solutions, integrating Steamworks & Epic Online Services for core online features such as Matchmaking, Achievements, Player Progression, Parties, and Voice Chat.
- Developed Editor tools (C++/Slate/UMG) and contributed to automating build/cook pipelines, resulting in an estimated 30% improvement in team efficiency.

KEY PERSONAL PROJECTS

Extraction (Multiplayer Top-Down Hero Shooter) – Personal Project | UE5, C++, GAS, EOS

- Designed and developed a multiplayer top-down shooter from scratch using UE5 C++ & GAS.
- Developed complete game logic and implemented server-authoritative architecture (player states, inventory, ability system) with motion prediction.
- Integrated EOS SDK: Voice Chat, Cross-platform session management.
- Optimized performance & UX across platforms (PC/Mobile): Focused on bandwidth, mobile FPS, and comprehensive Game Controller support.

EDUCATION

Software Engineering

FPT University HaNoi, 04/2024