



Kai Wang
C++ / Game Developer

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- Portfolio
- Github
- Linkedin

About me

I'm a game developer with experience in Unreal, Unity and C++ in house engine. While my core expertise lies in C++ programming, I'm passionate about gameplay mechanics, optimization, and creating engaging player experiences. My experience has given me deep understanding of game architecture and performance optimization. I'm eager to leverage my cross-engine expertise and low-level programming knowledge to contribute to ambitious game projects and push technical boundaries in game development.

Personal Information

Language: English, Mandarin

- Skills
- C++, C, Lua, Rust, Python
 - Jenkins, ImGui, DirectX, Physx, CMake, Vim, FastBuild
 - Unreal, Unity, C++ in house game engine
 - Game Development, 3D Simulation Engine, 3D Mathematics
 - Plastic, Perforce, Git, Jira, Miro, Confluence
 - Communication and team collaboration

Education		
2021 - 2023	Game Programmer	Futuregames
2020 - 2021	Information Technology M.S.	University of New South Wales
2016 - 2020	Computer Science B.S.	Southern University of Science and Technology

Experiences		
2025 - 2026 Aug Jul	C++ Programmer	Tenstar Simulation
– Develop and maintain a proprietary real-time simulation engine in C++, which uses DirectX for rendering, NVIDIA PhysX for physics simulation, and Lua for gameplay/exercise scripting.		
– Built multiple Lua-based simulation exercises, including tracked excavator trench-digging with soil interaction.		
– Implemented Lua hot-reloading to apply script changes at runtime, reducing iteration time for development and content creation.		
– Implemented arithmetic rule filtering for metric system to enable flexible metric selection and analysis workflows		
– Contributed to an internal Rust desktop application (egui) for localization workflow management. Implemented features for localization (Gridly integration) and AI Text-to-Speech (Google & Elevenlabs).		
2023 - 2024 Nov Jul	Unreal(C++) Gameplay Programmer	Supercell
– Collaborate with 5 other developers to create a mobile game prototype on IOS platform on Unreal 5. Game Trailer		
– Architected and implemented core systems including character controller (3C), gameplay ability system (GAS), UI framework, and local multiplayer functionality.		
– Partnered with artists to integrate and optimize UI/UX elements, character animations, and visual effects		
– Managed the complete iOS build pipeline, including configuration, optimization, and deployment processes.		
2023 - 2023 Mar Nov	Engine Programmer Intern	Avalanche Studios
– Implemented Perlin Noise Generator for the engine's core mathematics library, improving procedural generation capabilities.		
– Modernized engine's debugging infrastructure by migrating legacy UI debug systems to ImGui, enhancing development workflow and debugging efficiency.		

Projects		
Kaibi	C++ game engine development	Github
– Developed a lightweight C++ game engine as a learning project, focusing on fundamental systems:		
– Implemented core architecture including event system, logging framework, debug UI framework and basic rendering		
– Gained hands-on experience with engine architecture principles and modern C++ practices		
ECS	C++ & Rust Project	C++ & Rust
– Implemented a custom Entity Component System (ECS) framework from scratch in C++, demonstrating practical application through a shooter game prototype with systems for physics and entity management		
–Reimplemented the ECS framework in Rust to explore memory safety and concurrent design patterns		