Kai Wang

Portfolio

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Education

- **Futuregames** — Stockholm, Sweden
  Game Programmer — *Aug. 2021 – Dec. 2024*
- **University of New South Wales** — Sydney, Austrilia
  Postgraduate study in Information Technology — *Aug. 2020 – Jun. 2021*
- **Southern University of Science and Technology** — Shenzhen, China
  Bachelor in Computer Science — *Sep. 2016 – Jun. 2020*

Experience

- **Tenstar Simulations** — Falun, Sweden
  C++ Programmer — *Aug 2025 - Jul 2026*
  - **Workflows**: Develop and maintain features for real time vehicle-simulation features in C++ proprietary engine. Developed and maintained simulation engine subsystems. Debugged and resolved engine-level issues related to physics(Physx) and rendering(DirectX) system. Daily workflow includes regular code review and collaboration with developers for simulation exercises.
  - **Imgui Debug Tool**: Implemented several in-engine ImGui debug tools used to diagnose soil simulation, assets exporting behavior during development and exercises.
  - **Rust Text to Speech Tool**: Developed an internal tool using Rust to allow designers to generate text-to-speech via Elevenlabs API. Improving content creation workflow.
  - **Lua Hot-reloading**: Experimented and implemented Lua hot-reloading feature for gameplay/exercise logic, allowing real-time updates without restarting the engine.
- **Supercell** — Shanghai, China
  Unreal(C++) Gameplay Programmer Game Trailer — *Nov 2023 - June 2024*
  - **Workflows**: Collaborate with 5 other developers to create a mobile game prototype on IOS platform on Unreal 5.
  - **Gameplay**: Architected and implemented core systems including character controller (3C), gameplay ability system, build & crafting system, UI framework, and local multiplayer functionality.
  - **Animation & UI**: Partnered with artists to integrate and optimize character animations, UI/UX, and abilities visual effects
  - **Build**: Managed the complete iOS build pipeline, configuration, and deployment processes.
- **Avalanche Studios Group** — Stockholm, Sweden
  Engine Programmer Intern — *Mar 2023 - Nov 2023*
  - **Workflow**: Delivered scoped mentoring tasks in Jira: implementation, code review, and integration.
  - **Perlin Noise**: Implemented a Perlin noise generator in the engine mathematics library
  - **Imgui**: Migrated legacy in-engine debug UI to Imgui

Projects

- **kaibi**: Personal engine playground for learning purpose and experimenting core systems—events, logging, memory allocation, and rendering— explore engine architecture and modern C++.
- **ECS (C++ & Rust)**: Implemented a small custom ECS in C++ for learning, applied in a simple shooter prototype. Rebuilt the ECS in Rust with archetype-style storage to explore more efficient entity look up and management.

Programming Skills

- **Languages**: C++, Lua, Rust