Akua

Software Engineer

Unity, C# & Client Systems

https://github.com/OrangeEgg1937
https://orangeegg1937.github.io/

Software engineer working on Unity and Android applications, client performance, native hooks, and dev tooling.

Work experience

Votanic Limited Junior Software Engineer — Aug 2025 - Present

- Designed and built an asynchronous asset-loading pipeline and texture cache in Unity, optimizing load time for one large textured 3D model on the same hardware from 46.92 s uncached to 1.54 s cached.
- Used Unity Profiler to find off-screen image loads and full-list rebuilds, then rebuilt the list UI shared across panels; observed scrolling rise from 30-39 FPS to around 60 FPS, with occasional dips.
- Designed multiplayer asset synchronization using Mirror RPCs, a TCP asset-transfer protocol, and versioned operation queues, and tested client recovery across temporary disconnections and packet drops.
- Connected third-party BlazeFaceBarracuda tracking with off-axis projection so head movement controls the desktop camera; added interpolation and moved selected vector and distance math to compute shaders.
- Built an internal GitHub Actions workflow that sends pull-request diffs to the Copilot API and posts inline review comments or line links.

Hong Kong Shangmi Network Technology Company Limited Software Engineer — Aug 2024 - Jun 2025

- Implemented list views, asynchronous loading, and Java bridge code for a floating in-game toolkit on top of the company's Android UI library.
- Built an Android NDK library for a shipped game integration, hooking Unity IL2CPP text and image symbols with shadowhook; read Unity objects and UTF-16 strings in native code and verified placeholder text replacement.
- Developed an Android translation pipeline running OPUS-MT via ONNX Java with a C++ tokenizer bridged through the NDK (still in development when I left).

Selected projects

Personal website Eleventy & Blender — Oct 2026 - Present

- Created an ENG/CHT Eleventy site with AI coding agents, featuring three 12-second HD2D background loops; moved scene rendering to Blender after AI-generated drafts showed noise and lighting errors.
- Wrote and tested a delegation skill so Claude Code could call Codex directly instead of manually copying prompts between chats.

Toolbox Chan AI-assisted desktop toolbox — Sep 2026 - Present

- Built a Tauri/Rust and React/TypeScript app with AI coding agents, with offline-by-default OCR for private documents; defined requirements, reviewed agent plans and test cases, and tested it offline.
- Refactored the initial OCR-only app into separate tool modules so new utilities could be built in parallel across agent chats and worktrees.

Just Watch One More Reel GMTK Game Jam 2025 — 30 Jul - 3 Aug 2025

- Developed and published a Unity/C# browser game about short-video recommendations; implemented the gameplay and UI while a teammate created the artwork.
- Pooled two objects for the scrolling reel loop, shuffled video order with Fisher-Yates, and handled UI feedback with C# events and `Action` callbacks.
- Ranked #796 in Creativity among 9,378 rated entries.

Skills and languages

Unity/client systems: C#, Unity Profiler, asynchronous loading, caching, Mirror RPCs, TCP, compute shaders.
Android/native integration: Java, Android NDK, Unity IL2CPP, ONNX Java; C for embedded systems.
Development tools: Git, GitHub Actions, Claude Code, Codex, DeepSeek Harness.
Languages: Cantonese and Mandarin: native; English: fluent.

Education

The Chinese University of Hong Kong B.Eng. in Computer Engineering — Jul 2024

- Second Class Upper Division honours; CGPA 3.25/4.00.