CHEE Chorng Herng

Communication Engineering, National Central University, Taiwan
Undergraduate, Sep 2023 – Aug 2026, now on leave of absence

cch137.com
github.com/cch137
cheechorngherng@gmail.com
Johor Bahru, Malaysia

Full-stack engineer who designs, builds, deploys and runs software, from microcontroller firmware and back-end services to web apps and browser extensions. Recent work applies LLMs to practical problems: agents that work on real computers, real-time voice agents in mixed reality, and business data that traces back to its source files.

SKILLS

Languages	TypeScript, JavaScript, Python, C, SQL, HTML, CSS, C++, Rust
Web	Node.js, Deno, Svelte, SvelteKit, Tailwind CSS, React, Next.js, Express.js, Hono
Databases	PostgreSQL, SQLite, Redis, MongoDB
AI	Multi-agent systems, real-time AI, vector RAG, LangGraph
DevOps	Linux, Git, Cloudflare Tunnel, GitHub Actions, Docker, Nginx, systemd
Hardware	Raspberry Pi, Arduino, ESP8266, HoloLens 2 (with Unity)

PROJECTS

Raven, personal AI agent platform, sole developer 2022 – Present

`TypeScript (SvelteKit)/Rust/PostgreSQL/Raspberry Pi`

- Built my daily-use AI agent platform. It runs models from OpenAI, Anthropic, Google and xAI, its agents work on my computers and in my browser, and a main agent can split a task among parallel agents.
- Designed the SvelteKit web app and the Rust services. The current repository has 6,700+ commits since Aug 2025, and Raven's own agents write most of the Rust code.
- Shipped minion, a single-binary Rust device agent for Linux, macOS and Windows that lets agents edit files and run commands. A GitHub Actions pipeline cross-compiles, signs (Ed25519) and publishes it: 61 releases in Aug – Oct 2026.
- Shipped Wisp on the Chrome Web Store. It lets agents work in my signed-in browser, in their own window or in my tabs.
- Run about 20 systemd services on a Raspberry Pi behind Cloudflare Tunnel, supervised by warden, my own tool for metrics, logs, alerts and deployments.

Clew, personal experiment in source-traceable business data, sole developer 2026

`TypeScript (SvelteKit)/Rust/Python/PostgreSQL/OCR`

- Built a tool that turns a company's quotes, orders and scans into one supplier price list. Every price links to its source cell or page region.
- AI writes one parser per spreadsheet template, and the parser then reads every file of that template with no further AI calls.
- Corrections survive rebuilds. Clew runs on the company's own computer, and AI calls send only text excerpts.

Mind Reality, HoloLens 2 mixed-reality app, team of 3 2025 – 2026

`Python (LangGraph)/TypeScript (Node.js)/Three.js/SQLite/C# (Unity)/HoloLens 2/OpenAI Realtime API/Gemini`

- Users describe an object by voice, and LLM agents generate, check, animate and place it in the room. Grade A award in the department's undergraduate project competition.
- Designed the LangGraph multi-agent architecture and built the real-time voice agent that hands jobs to sub-agents.
- Built object generation: an agent writes each 3D object as Three.js code, and a headless browser exports it as glTF. A multimodal model checks 16 views for defects and sends failed objects back for repair.
- Built the Unity side on the lab's LARR remote-rendering platform, which streams to HoloLens 2. The Unity server compiles agent-written C# animation planners at run time with Roslyn.

IoT Watering, Microcomputers course, team of 6 Nov – Dec 2024

`C++ (Arduino, ESP8266)/TypeScript (Node.js, Next.js)/TCP/Raspberry Pi`

- Wrote the ESP8266 firmware, Arduino control logic, a Node.js server and a live Next.js dashboard.
- Designed a binary protocol with one-byte opcodes for the 9600-baud serial link and TCP, several times smaller than JSON.
- Moved the device from WebSocket to plain TCP after WebSocket failed on the dormitory network, and added automatic reconnection and fault resets.

OTHER PROJECTS

Network Mapping (Computer Networks, 2025) – A network topology explorer with a crawler, DNS lookups and vector search

Social Network Recommender (Data Structures, 2024) – A Redis-like database in C, with a client library and a recommender