Justin Tom

Software Developer

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Full-stack developer shipping production web applications serving international school educators worldwide. Solo-maintain two Laravel platforms (EdVaults, HighFour) handling server provisioning, deployments, and incident response. Built HanziLens, an AI-powered Chinese learning tool with a live Chrome extension. Passionate about self-hosting and AI-augmented workflows.

EDUCATION

Bachelor of Science in Computer Science

University of British Columbia, Kelowna, BC   2020–2024

EXPERIENCE

Freelance Software Developer   Nov 2025 – Present
EdVaults, HighFour   *Remote*

- Solo developer maintaining two production Laravel applications serving international schools
- Migrated HighFour from cPanel VPS to DigitalOcean with minimal downtime; handled DNS cutover and data integrity
- Manage infrastructure: server provisioning, deployment pipelines, database backups, incident response
- Navigate legacy WordPress/PHP (EdVaults) and clean Laravel (HighFour) architectures
- Deliver new subject offerings to EdVaults under tight school-year deadlines

IT Support Specialist   Sept 2024 – Present
International Montessori School, Hong Kong   *Hong Kong*

- Part of 3-person IT team supporting 150+ staff across 4 campuses and 1 HR office
- Built ticketing and work-order tracking system using Google Sheets, Apps Script, and JotForm
- Write automation scripts for marketing and admissions: data pipelines, analysis tools, slide generation

IT Intern   Summer 2023
Virtuos Games   *Shanghai, China*

- Rewrote internal email signature tool from Angular to React
- General IT support at AAA game development studio

PROJECTS

HanziLens   hanzilens.com | github.com/7ito/hanzilens

- Chinese learning platform with OCR and AI-powered text analysis; Chrome extension live on Web Store
- Sentence breakdown with tone-colored pinyin and definitions using Gemini 3 Flash for OCR
- Features clickable dictionary (CC-CEDICT), dark mode, responsive design
- *React, Express, TypeScript, SQLite, WXT, OpenRouter, Gemini 3 Flash*

Clipset   github.com/7ito/clipset

- Self-hosted video sharing platform for private communities; no compression, no file size limits
- GPU-accelerated transcoding (NVIDIA NVENC) with HLS streaming and signed URLs
- Rewritten from Python/FastAPI to Go for production-grade concurrency
- *React, TypeScript, Go, PostgreSQL, Docker, Nginx, HLS, NVENC*

EduSynth   Capstone Project

- LLM-powered presentation generator built before OpenAI introduced structured outputs
- Engineered custom prompt pipelines using LangChain to enforce JSON schemas for PowerPoint/Word
- Led AI pipeline design for team of 5, implementing RAG on study materials
- *React, JavaScript, Django, Python, MySQL, OpenAI API, LangChain*

SKILLS

Languages: JavaScript, TypeScript, Python, PHP, Go, Java, SQL
Frontend: React, Vite, Tailwind CSS, WXT (Chrome Extensions)
Backend: Node.js, Express, Django, Go, FastAPI, Laravel
Databases: MySQL, PostgreSQL, SQLite
AI/LLM: OpenAI API, LangChain, OpenRouter, Qwen, Gemini
DevOps: Docker, Git, Linux, Nginx, HLS Streaming, DigitalOcean, AWS EC2