

Xuan Tang

Full-Stack Engineer

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SUMMARY

Full-stack engineer with 7+ years of experience spanning iOS (Swift/Objective-C), modern web development (SvelteKit, React, TypeScript), and AI/ML integration (LLM, NLP, TTS). Proven ability to architect and ship end-to-end products as a solo or small-team developer — from frontend through backend (Hono, Cloudflare Workers, Azure Functions) to infrastructure (Docker, NixOS, CI/CD). Fast learner who transitioned across mobile, web, and AI domains.

SKILLS

Languages: TypeScript, Python, Swift, JavaScript, Objective-C
Frontend: SvelteKit 5, React, Tailwind CSS, shadcn
Backend: Node.js, Hono, Prisma, Drizzle ORM, PostgreSQL, Better Auth, Zod, Pydantic
AI & ML: OpenAI, Anthropic, Azure AI, spaCy, RAG, NLP
Cloud & Infra: Cloudflare Workers / Pages / D1 / R2 / Queues, Azure Functions, Azure Service Bus, Azure Blob Storage, Docker, Linux
Tools & Practices: Bun, uv, Biome, Nix Flakes, CI/CD, Agile, Jira, Confluence

EXPERIENCE

Full-Stack Engineer — Gengram, Ottawa, ON

April 2025 – Present

Sole developer (2-person team) who designed and built a full-stack PTE exam practice platform from zero — TypeScript frontend + backend, Python AI pipeline, and Azure Functions microservices, covering 20+ question types with end-to-end AI-driven scoring.

Developed the backend on Hono / Cloudflare Workers with Cloudflare Queues for async tasks, Azure Service Bus to trigger Azure Functions workers for AI-driven scoring and content generation.

Built the SvelteKit 5 frontend with dedicated practice UIs for Speaking, Writing, Reading, and Listening, supporting 20+ question types.

Implemented browser-based audio recording with Azure Speech SDK (ASR) for real-time pronunciation assessment and scoring on speaking tasks.

Created a Python AI content pipeline (uv workspace, OpenAI, spaCy) with 8 domain modules for question generation, audio synthesis (Azure TTS), dictionary crawling, NLP-based text processing, and LLM-powered explanation generation.

Managed a multi-schema Azure PostgreSQL database (Prisma ORM) with separate schemas for content, auth, and lexicon.

Adopted TypeSpec for cross-language API contracts, ensuring type safety between the TypeScript backend and Python services.

Software Engineer — Podoteng (JV of Tencent & Kakao), Chengdu, China

Feb 2021 – Feb 2023

Owned core feature development (Swift) for the PODO Comics iOS app serving 200K+ daily active users — delivered homepage, search, and community modules across 12+ iterative releases.

Established a Git-based CI/CD pipeline with Jenkins, shortening release cycles and accelerating bug-to-fix turnaround.

Architected a decoupled analytics framework that separated event tracking from UI code, reducing maintenance overhead and enabling rapid A/B experimentation.

Built a SwiftUI Mac utility for bulk log analysis, cutting debugging time for complex cross-module issues.

Set up enterprise infrastructure — OpenVPN for secure remote access and Nextcloud for internal file collaboration.

Software Engineer — Next Engine Intelligence, Chengdu, China

Nov 2019 – Feb 2021

Led an iOS team on the BAIC Off-Road social app (Objective-C, IGLiteKit) — optimized feed rendering and video thumbnail loading for a measurably smoother user experience.

Designed a dynamic form-generation framework that eliminated repetitive UI code, accelerating new module delivery.

Shipped a real-time navigation feature with voice control (Swift + WebSocket), increasing user engagement with map-based activities.

Software Engineer — Handjoy Global Technology, Chengdu, China

Jun 2015 – Mar 2019

Core developer of the HJCenter gaming platform (500K+ DAU) — built game library, download management, social sharing (WeChat/QQ/Weibo), and multi-channel distribution across 5 build targets.

Reverse-engineered iOS input frameworks in a sandboxed R&D environment to enable non-MFI game controller support, extending hardware compatibility without compromising system stability.

Developed a public SDK for external controllers (gamepads, drone controllers), adopted by partner companies for secondary development including UAV control applications.

Integrated the company's proprietary mouse and keyboard peripherals with iOS games via IOKit, delivering a desktop-like gameplay experience on mobile.

EDUCATION

AI Software Development — Algonquin College

Expected October 2025

GPA: 3.96/4.0.

MS in Computer Science — University of Colorado, Boulder

Expected December 2026

GPA: 4.0/4.0. Focus: Artificial Intelligence, Data Science.

BA in Business Administration — University of Maine at Presque Isle

June 2024

GPA: 4.0/4.0. Focus: Project Management, Information Systems.

BE in Software Engineering — Chengdu Jincheng College

June 2016

Focus: C++, iOS Development.