GINA XU

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EDUCATION

Northeastern University   **Vancouver, BC**
Master of Science, Computer Science, GPA 3.95/4.0   *Jan 2024 – May 2026*

Nanchang University   **Nanchang, China**
B.A in History & Archival Studies, GPA 3.66/4.0   *Aug 2019 – May 2023*

TECHNICAL SKILLS

Programming Languages: TypeScript, JavaScript, Java, Python, HTML, CSS, SQL, Bash, JSON
Frameworks & Libraries: Node.js, Express.js, React, React Native, Next.js, Tailwind CSS, Material-UI
Backend & Database: SQL, MySQL, PostgreSQL, MongoDB, Supabase, Firebase, RESTful APIs, Prisma
Tools & DevOps: Git, Claude Code, LLMs, Amazon AWS, Cloudflare, Jest, Postman, Docker, YAML, TailwindCSS, Agile

WORK EXPERIENCE

Software Developer   **Vancouver, BC**
Ours TCF   *Nov 2025 – Present*
- Spearheaded a cross-functional team to develop and launch a profitable commercial language platform with **3,000+ dynamic questions**, architecting a decoupled storage solution using **Supabase** for structured data and **Cloudflare R2** for media assets.
- Engineered an **LLM-powered** vocabulary system via OpenRouter API with instant translations cached to the database to reduce costs, combined with an Ebbinghaus **spaced repetition algorithm** to drive personalized learning and user retention.
- Architected scalable relational schemas and secured user data via **Supabase Auth** and Row Level Security (RLS**)**, while establishing frontend technical standards to deliver a **responsive, mobile-first** UX with optimized skeleton loading states.
- Integrated **Stripe** for automated subscription billing, successfully bringing the product to profitability with **100+ active users** and driving a robust **20% free-to-paid conversion rate** via high-value analytics and premium mock exams.

Mobile Development Teaching Assistant   **Vancouver, BC**
Northeastern University   *Sep 2025 – Dec 2025*
- Mentored a cohort of **50+ graduate students** in cross-platform mobile architecture, conducting code reviews to debug complex React Native state management, Flexbox layouts, and navigation routing to accelerate assignment deliveries.
- Evaluated and provided technical feedback on 200+ mobile application assignments, enforcing industry-standard clean code practices, **Git** version control, and optimal component rendering strategies to elevate codebase quality.
- Facilitated full-stack integration workflows, troubleshooting advanced technical blockers related to Firebase Authentication, RESTful HTTP requests, and native device APIs (Camera, GPS) to elevate students' final project architectures.

Software Developer Intern   **Burnaby, BC**
SuoGoGo   *May 2025 – Sep 2025*
- Collaborated within a 10+ member agile team to build a **B2B logistics portal** using **React, TypeScript, Jira, and Git** successfully delivering the **MVP** beta version that supported the onboarding of 20+ initial logistics partners.
- Integrated 15+ complex **RESTful APIs** to securely synchronize multi-tenant shipping data, proactively managing network latency by implementing robust error boundaries and skeleton loaders that decreased perceived page load time by ~30%.
- Translated Figma prototypes into responsive web interfaces utilizing **Tailwind CSS**, establishing a centralized library of 20+ **reusable UI components** that reduced codebase duplication and accelerated frontend development speed by ~40%.

PROJECTS

Mastodon Archive Viewer | React, TypeScript, Vite, Dexie.js (IndexedDB), Tailwind CSS, Fuse.js   *Dec 2025 – Jan 2026*
Personal Project: Client-side web app for parsing, exploring, and persistently storing Mastodon data archives
- Engineered a zero-backend, offline-first data pipeline utilizing @zip.js to extract 20,000+ interactions directly in-browser, coupled with Dexie.js (IndexedDB) for persistent client-side storage to ensure strict data privacy and seamless offline access.
- Optimized UI rendering via @tanstack/react-virtual, guaranteeing 60fps infinite scrolling and time-indexed anchor navigation across 15,000+ posts, alongside an interactive **Recharts dashboard visualizing** engagement metrics.
- Developed advanced data workflows featuring a Fuse.js full-text search delivering sub-100ms content retrieval across 15,000+ records, multi-account merge strategies, and an optional **Google Drive OAuth** for secure cloud backups.

Tomatch | React Native, TypeScript, Firebase, Expo, LLMs
Team Project: AI-powered mobile app for grocery price tracking and trend analysis.   *Apr 2025 – Jun 2025*
- Engineered the cross-platform mobile interface using React Native and Expo, implementing **high-performance interactive charts** to visualize price trends while utilizing **FlashList** to guarantee a strict 60fps rendering for extensive grocery catalogs.
- Architected a hybrid receipt parsing pipeline combining **on-device OCR** and lightweight LLMs for structured JSON extraction, integrating **vector search** to normalize disparate grocery items into a unified catalog with **98%+ accuracy**.
- Streamlined cross-platform CI/CD pipelines via Expo Application Services (EAS) for automated deployments, leveraging Over-The-Air (OTA) updates to **bypass app store review cycles** and accelerate bug-fix rollouts to users by **over 50%**.