Yan Xue

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EDUCATION

University of Waterloo — Sep 2024 - Ongoing
BASc in Computer Engineering, Honours, Co-op — GPA 3.9 — Waterloo, ON
- Engineering Entrance Scholarship (**top 2.4%**); President's Scholarship of Distinction; In excellent standing

EXPERIENCE

Photon (YC 25F) — Dec 2025 – Present
Software Engineer Intern — San Francisco, CA
- Architected BuildSpace, a **CI/CD** framework adopted by **100%** of services, reducing release cycles by ~**65%**
- Engineered an **LLM-driven** system to analyze diffs, automate semantic version bumps, and generate release notes
- Created a **Go** fleet dashboard for automated Mac provisioning for **20+ Macs**, health checks, and Slack alerts

BitGo — Sep 2025 – Dec 2025
Software Engineer Intern — Palo Alto, CA
- Safeguarded **financial API integrity** by engineering a **Rust** linter for **3,200+ operations** across ~**25 weekly PRs**, blocking invalid specs instantly and saving **20+ hours/week** of manual review for tech writers
- Engineered a **Tree-sitter** and **GraphQL** based diffing engine to catch semantic breaking changes in **milliseconds**
- Implemented **Docker context checksums** to conditionally trigger CI jobs only on relevant source code changes
- Improved BitGo **SDK OpenSSF Scorecard from 5.4 to 7.5** by remediating npm vulnerabilities (XSS, DoS)

HongMall Ecommerce — Jan 2025 – Apr 2025
Software Engineer Intern — Markham, ON
- Developed Rasa chatbot trained on **1.48M+** historical queries, achieving **95%+** intent detection for **1M+** users
- Categorized query logs via **vector clustering**, identifying **200+ missing intents** to improve model coverage
- Engineered warehouse robot control dashboard with **Python**, **React**, and **Flask** managing **50K+** inventory items

Skynet Security Systems — May 2024 – Aug 2024
Software Engineer Intern — Vancouver, BC
- Created an invoice system with **Python** and **Tkinter**, automating creation for **100+ invoices** annually
- Engineered Python pipeline consolidating customer data, deduplicating **2K+ records** with **98% accuracy**
- Developed the company's website using **React and TypeScript**, contributing to **60+ new clients** in 2024

PROJECTS

Git-semantic search | *Rust, Git, BGE Embeddings, Vector Search*
- Built natural language git logs search reaching **850+ users**, searching **10K+ commits in <100ms**
- Implemented BERT tokenization with cosine similarity, reducing commit discovery from **20+ min to <1s**
- Engineered binary vector storage achieving **3KB/Commit** with zero API dependencies

Flux | *TypeScript, React, TailwindCSS, PostgreSQL, WebSockets*
- Architected a **bi-directional WebSocket bridge** that tunnels local LLM runtimes to iMessage, enabling **6,000+ users** to deploy production agents in <5s, achieving **#1 Product of the Day** on Product Hunt
- Developed the **type-safe SDK** using **Zod** for runtime schema validation, abstracting complex native iMessage protocols such as tapbacks, multi-bubble responses, and phone-number auth into a simple **TypeScript API**

Marillac Place | *TypeScript, React, GraphQL, PostgreSQL, Docker*
- Developed a full-stack task management platform for Marillac Place **NPO** serving **28 homeless women**
- Engineered a **GraphQL** API with **Prisma** and **PostgreSQL** to manage resident records and automated task tracking

TECHNICAL SKILLS

Languages: Rust, Python, TypeScript, JavaScript, C++, C, Java, SQL, GraphQL, Go, Assembly, HTML/CSS
Tools: Git, GitHub Actions, Docker, Kubernetes, AWS CodeArtifact, Kafka, Redis, PostgreSQL, MySQL
Frameworks: React, Express, Next.js, Vite, Angular, Flask