

Catherine Xie

✉ catherinexie2014@gmail.com | 🌐 xiec1377 | 📄 catherinexie13 | 🌐 catherinexie.com

SKILLS

- **Languages:** JavaScript/TypeScript, Python, C/C++, C#, Ruby, Go, Kotlin, SQL (MySQL, PostgreSQL), HTML/CSS
- **Frameworks:** React, Angular, Node.js, Express.js, Django, Flask, Ruby on Rails, MongoDB, .NET, Pandas
- **Tools:** AWS, GCP, OAuth, Firebase, GraphQL, Docker, Kubernetes, CircleCI, OpenAI, REST/SOAP APIs, Agile, Figma

EDUCATION

University of Waterloo

Graduated Jun 2025

Bachelor of Computer Science, Honours, Co-operative Program (Graduated with Distinction — GPA: 3.7/4.0)

- **Relevant courses:** Application Development, Databases, Distributed Computing, Object-Oriented Programming, Data Structures & Algorithms, Networks, Operating Systems, User Interfaces, Human-Computer Interaction

EXPERIENCE

Software Engineer Intern

Sep 2024 – Dec 2024

Marketing Kitchen Inc.

Markham, ON

- Spearheaded the design and development of job order portal with React, C#, MSSQL, SMTP, AWS Cognito and S3 to streamline real-time collaboration between stakeholders, reducing weekly correspondence by **40%**,
- Scaled IoT employee time-tracking scanner system to handle **10,000+** daily requests with load balancer in Go
- Engineered failover mechanism in scanner system using REST and SOAP middleware, resolving **100+** reported scanner downtime incidents, reducing human errors by **80%** and saving **4 hours** of operational time per week

Software Engineer Intern

May 2024 – Aug 2024

Justworks

Toronto, ON

- Programmed data serializer pattern in Ruby on Rails, leveraging OAuth scopes to redact sensitive employee PII of **12,000+** users in **20+** countries, enhancing data compliance with global standards and regulations
- Proposed technical specifications outlining PII redaction strategies, trade-offs and security considerations
- Optimized front-end performance with lazy loading and code splitting, reducing initial load time by **30%**

Software Engineer Intern

May 2023 – Aug 2023

Toronto Transit Commission

Toronto, ON

- Automated Windows OS and security updates using Powershell script, ensuring the installation of necessary dependencies and prerequisites, reducing downtime by **20%** across **5,000+** production machines
- Deployed standardized software across **1,200+** employee and executive machines, improving system consistency and ensuring uniformity in software performance and security

Project Developer

May 2023 – Aug 2023

UW Blueprint - Focus on Nature

Waterloo, ON

- Built registration flow for camper and admin users using MERN tech stack for local non-profit aimed to promote youth summer camps, handling registrations of **7,000+** children per year
- Programmed robust code to gracefully handle invalid refund requests, coupons, and discounts using Stripe API, reducing payment failures by **25%** and ensuring seamless payment processing for customers

Full-Stack Engineer Intern

Sep 2022 – Dec 2022

Empire Life Insurance

Toronto, ON

- Led cross-functional team in the design and development of novel bilingual glossary used by **1,500+** weekly customers as a learning tool to better understand insurance terminology
- Developed Registered Retirement Savings Plan dashboard page with Django and React used by **2,500+** weekly advisors to view and manage retirement savings

Application Developer Intern

Jan 2022 – Apr 2022

Bank of America Securities Inc. (previously Bank of America Merrill Lynch)

Toronto, ON

- Developed tax billing and collateral pricing pages of the transaction dashboard used by financial advisors for client trade management and monitoring, using Angular and Node.js
- Coded **30+** test-driven development Jasmine tests suites to validate CRUD functionality and filtering in the transaction dashboard, ensuring reliable transactions for financial advisors and improving test coverage by **30%**