# Michael Xie

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### **EDUCATION**

# University of Waterloo

Waterloo, ON

Bachelor of Computer Science(Co-op), Human Computer Interaction Specialization

Relevant Courses: Algorithms, User Interfaces, Object-Oriented Software Development

Sept. 2022 - Present

# EXPERIENCE

## Developer

May 2024 – August 2024

Royal Bank of Canada(Digital Development Security Team)

Toronto, ON

- Developed and maintained projects and REST APIs for over 5 million clients using Angular, Tailwind CSS, Spring Boot, and Postman
- Engineered a detailed web application with **Angular** and **Spring Boot** to decode JSON Web Tokens and provide additional information about RBC Security Tokens to **over 1,000** employees, improving efficiency by **20**%
- Reduced onboarding time by 40% by creating and deploying a token onboarding portal across multiple development environments using Redis, Docker, and Openshift.

# Junior Analyst/Associate

May 2023 – August 2023

Royal Bank of Canada(Law Group Technology Team)

Toronto, ON

- Designed and implemented robust Web Applications using C# and Visual Studio, skillfully incorporating ASP.NET MVC 5 and seamlessly integrating data sourced from MS SQL
- Increased efficiency by 25% by optimizing the creation of Power of Attorney documents, employing ASP.NET, Bootstrap, and jQuery in website development

### PROJECTS

Quizlr(GitHub) | Android Studio, Kotlin, Java, Figma, XML

- Engineered a **dynamic** multiple-choice quiz application using **Android Studio** and **Kotlin**, showcasing proficiency in both languages
- Crafted the application's intuitive **front-end environment**, integrated **music/SFX** functionality, and implemented quiz logic, leveraging **Activity Lifecycle** and **OOP principles**

Word Search Solver(GitHub)(Link) | Next.js, Typescript, Tailwind CSS

- Crafted a web application with Next.js in Typescript, dedicated to proficiently resolving word search challenges
- Levered React Components with Tailwind CSS to design an interactive and intuitive web interface
- Incorporated advanced functionality by integrating the **Tesseract.js** library, enabling Optical Character Recognition (**OCR**) to recognize and solve word search grids

Battlesnakes: Spoodersnek-42(GitHub) | Python, AWS API Gateway, AWS Lambda

- Partnered closely with RBC COOPs to design and implement a virtual snake using a **REST API** on the prestigious **Battlesnakes** platform.
- Devised a sophisticated algorithm, leveraging advanced path-finding techniques like  $A^*$  and Flood Fill, in Python to elevate the strategic depth of gameplay
- Attained an impressive  ${f top}$  40  ${f status}$  on the competitive Battlesnakes Ladder

#### Leadership

#### Logistics Team Lead

Canadian University Software Engineering Conference

May 2024 - Present

• Coordinated with internal teams to design and promote the event agenda, employing detailed planning and effective communication methods to organize venues and a variety of speakers, workshops, and networking sessions

## TECHNICAL SKILLS

Languages: Python, Java, C/C++, C#, SQL, Rust, Kotlin, JavaScript, TypeScript, HTML/CSS, R Frameworks/Libraries: Angular, React, Next.js, Spring Boot, Node.js, Tailwind CSS, .NET Core, Django Developer Tools: Git, GitHub, SSMS, Redis, Postman, Openshift, Azure, AWS, GitHub Actions, Jenkins, Swagger, Tableau, Android Studio, Figma