

Lexie Zhang

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EDUCATION

Bachelor of Software Engineering - University of Waterloo

2022 - 2027

- **Dean's Honours List, CGPA: 3.9 (88%)**
- Relevant courses: C++ Object-oriented development(OOP), Data Abstraction & Implementation, Data structures, Algorithms, Complexity theory, Database, Optimization, Combinatorics, Unit Testing, Scripting, Compilers

SKILLS

Languages C++, C#, SQL, Python, Java, TypeScript, C, Rust, Go, Kotlin, HTML/CSS, JavaScript
Technologies ASP.NET MVC, .NET, Git, MongoDB, Express.js, React, Node.js, Linux, Bash, Angular, NumPy, LangChain, Firebase, RestAPI, GTest, NUnit, Agile, AWS, Azure, TensorFlow, PyTorch, Django

EXPERIENCE

Software Developer Intern - 1Password

Sep. 2024 – Dec. 2024

- Developing and maintaining backend services in **Go** and **Rust** for a cybersecurity platform with **MySQL** database
- Working on self-serve migration feature implementing Single Sign-On (**SSO**) on deactivated accounts
- Working on frontend development using **React**, **Angular**, and **TypeScript** to create user-friendly interfaces

Software Developer Intern - Senstar Corporation

Jan. 2024 – Apr. 2024

- Developed Symphony surveillance VMS software using **C# .NET**, **TypeScript** and multi-threaded programming
- Spearheaded the development of a third-party integration plugin utilizing **REST API** for two-way communication
- Modified the frontend for the server configuration web application by **React.js**, **Angular** and **Knockout.js**
- Managed database operations using **SQL** and **LINQ** queries to optimize and streamline data handling processes
- Implemented and maintained robust testing protocols using **NUnit** and mocking with **Dependency Injection**

Software Developer Intern - Toronto Transit Commission

May. 2023 – Aug. 2023

- Developed financial report generating **MVVM** application using **C#** and **ASP.NET MVC** with **SQL server**
- Reduced **stored procedures** run time by **27%** by optimizing **SQL** queries to combine and manage the data
- Utilized **AngularJS** and **KnockoutJS** to create data grid visualizations and enable Excel download and upload
- Refactored codebase to modern development standards resulting in a **23%** increase in code efficiency

Research Assistant - University of Waterloo

Sep. 2023 – Dec. 2023

- Conducted research in Human-Computer Interaction(**HCI**), specializing in graphic databases and query generation methodologies, concentrated on innovative approaches to data visualization using **D3** on large codebases
- Implemented the **Cypher** query-generating tool UI using **React.js**, generating and displaying complex data structures as node graphs within the **Neo4j** graphical database when users input specific parameters

Software Developer Intern - Project: Human City

Jan. 2023 – Apr. 2023

- Utilized **C#** for storing model in **Unity engine** and generating **sprites** of real-world objects for the **AR** app
- Trained **YOLO** model to load **TensorFlow** data graph for object identification and **gesture detection**
- Reduced the error of the machine learning model by **11%** by implementing **image mix-up** technique

PROJECTS

GomokuMatch, Python, React, Flask, Django, SQL 🔗

- Implemented a full-stack app on **Azure** in **React** and **Django**, allowing real-time player interactions
- Built backend functionality with **SQL** queries on **MySQL** server for user statistics updates and game lobby slots
- Created secure user authentication and password management using **bcrypt** and managed user sessions with **JWT**

GlowGrowth, MERN Stack, Material-UI, Tailwind CSS 🔗

- Developed a full-stack journal application using the MongoDB, Express.js, React, and Node.js (**MERN**), enabling **CRUD** operations for the **RESTful API** architecture and used **HTTP** methods for server-client communication