

Andrew Yiwen Xu

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Education

University Of Waterloo

Sep. 2020 – May 2025

Bachelor of Mathematics In Computational Mathematics, Honours Co-op

Waterloo, ON

- Relevant Coursework: C++ and OOP, Data Types and Structures, Computational Linear Algebra, Network Flow Theory

Skills

- **Languages:** Python, Go, Java, JavaScript, C++, Kotlin, SQL, Bash, MATLAB
- **Frameworks:** Django, Grails, GORM, gRPC, GraphQL, REST, PyTest
- **Infrastructure:** AWS, Docker, Kubernetes, Jenkins, Google Cloud Pub/Sub, Protocol Buffers, MongoDB

Experience

Intuit Inc

Sept 2023 – April 2024

Software Engineer Intern - DevX

Toronto, ON

- Software engineering on Developer Tools helping expedite feature creation and enhancing development efficiency

Favorite Medium (working with TuneIn Inc)

Jan 2023 – Apr 2023

Software Engineer Intern

Remote

- Used **Java (Kotlin)** in an MVVM structure to create custom view components for badging and customizing TabLayouts to spec throughout the TuneIn application.
- Designed TTL policies to automatically manage the lifecycle of audiobook data by building **SQL** queries and a worker for flagging and deleting after a certain time period has elapsed.

Achievers Inc

May 2022 – August 2022

Software Engineer Intern - Binary Experience

Toronto, ON

- Improved accessibility of the notifications interface for clients by revamping the platform notifications microservice on the backend using **Python (Django)**.
 - * Created batch publishing for push notifications by incorporating the **Google Cloud Pub/Sub** framework to create the required topics and subscriptions with **Docker** and **Kubernetes**.
 - * Spearheaded design of **gRPC** endpoints using **Protobuf** for notification functionalities such as sorting, notification relevancy, and CRUD operations.
 - * Implemented all integration and unit tests using **PyTest** and leveraged **Kubernetes** to conduct tests ensuring full coverage and seamless functionality.
 - * Enabled over **8000+** users across **33** enterprise customers to manage user interactions efficiently by building a new RESTful service for push notifications.
- Integrated event logs for syncing user emails from the company service to the **Iterable API**.
 - * Implemented checks to rollback outdated API calls from concurrent requests to ensure emails stored in Iterable is identical to emails in the user table.
- Maintained a **SQL** database by normalizing the data schema on user tables, preventing potential breaking changes for customers migrating to a newer version of the application.
- Inherited responsibility for onboarding and mentoring new interns.

Exponet Canada Inc

Sept 2021 – Dec 2021

Full-Stack Developer Intern

Mississauga, ON

- Incorporated **6** complete end-to-end features for a logistics management application, utilizing **React Redux w/Sagas**, **Java (Grails with GORM framework)**, and **Mongo Compass**.
- Reduced customer friction by centralizing package modification options for orders from Amazon.com such as fetching, rating, voiding, and printing shipping labels using the Amazon Marketplace Web Service API.
- Streamlined international shipment logistics by building a feature that generates customs declaration forms for orders using the **PDFBox API** and leveraging information from automated presets for products
- Enhanced inventory data by dynamically updating stock through an aggregation of over **5000+** items.

Projects

PennApps - Don't Ban Us | Python, NLTK, Electron.js

Sept 2023

- Built a universal chat filtration system to rephrase negative comments into positive messages before being sent, placing top 3 in the Gaming category and top 20 overall
- Used and trained an NLTK model to classify negative comments, ChatGPT API to rephrase messages and Electron.js to listen for text input discretely in the background as a system tray application

Biquadris | C++, Bash

January 2021

- Created a rendition of the game Tetris with C++, using MVC with an observer design pattern and used Bash to create and run test cases.