

# ANDREW LIU

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## EDUCATION

**University of Waterloo**  
B.ASc in Computer Engineering

**Waterloo, ON**  
Sept 2018 - Apr 2024

## SKILLS

**Languages:** JavaScript, Ruby, Elixir, Python, TypeScript, HTML/CSS, C++, SQL

**Tools/Technologies:** React, Rails, Next.js, Docker, Redux, Phoenix LiveView, Express, Node.js, Redis, Sidekiq, PostgreSQL, GraphQL, MySQL, Figma, Git

## EXPERIENCE

### theScore | Software Engineer

Sep 2023 - Dec 2023

- Maintained robust real-time sports-data ingestion systems with **Elixir/Phoenix** and **Rails**, ensuring the seamless integration of diverse data feeds from various sources
- Integrated a sports data source via a **persistent SSE connection** in **Elixir** for continuous replay of historical NFL games, testing real-time data ingestion resilience during core service updates.
- Reduced developer debugging time by **15%** by designing and implementing a file-archiving pipeline using **PostgreSQL** and **AWS S3** for payloads from data providers
- Deployed data monitoring solutions using **Datadog** and **Splunk**, creating custom dashboards to oversee key performance indicators, service uptime, data ingestion metrics, and service-level agreements.

### Drop | Back End Developer

May 2022 - Aug 2022

- Reduced fraud rates by **60%** after designing back-end service with purchase limit check algorithm in **Rails** and **Postgres**
- Developed internal tooling for admin portal to allow marketing and customer service teams to create important items with **ActiveAdmin** and **Rails**
- Increased user activity by **240%** after updating existing models with important fields to accommodate new redemption item release
- Implemented test suites with **RSpec** and type checking with **Sorbet** to ensure code reliability

### XE.com | Full Stack Developer

Sep 2021 - Dec 2021

- Developed new information card component with **React** and **Next.js** to standardize content layout on all XE marketing pages
- Reduced Cumulative Layout Shift by **35%**, increasing visual stability across pages to improve user viewing experience on XE's website
- Modelled and implemented pages in **Contentful** as part of a modernization of XE's category pages
- Increased user traffic by updating metadata to promote XE's **SEO visibility**

### Remitbee Inc | Full Stack Developer

Jan 2021 - Apr 2021

- Optimized queries in a **MySQL** database to decrease core platform load times by **15%**
- Implemented crucial bug fixes in **React** and **Redux**, improving client portal functionality
- Developed streamlined page templates with **React** and **Strapi CMS** by designing new components and refactoring existing code to be more dynamic
- Updated backend transaction flows using **Next.js** and **GraphQL** in preparation for new user group

## PROJECTS

### Re:Action

 Re:Action

- Developed a web app at Hack the Valley that allows users to query keywords and visualize relevant tweets according to their geographical locations around the world
- Used **React**, **TypeScript**, and a custom library to create a seamless and intuitive front-end
- Scraped relevant tweets using the Tweepy **Python** library to access **Twitter API**
- Stored tweets using **MongoDB Atlas** to be used later in data visualization