

WORK EXPERIENCE

Software Engineer · Thomson Reuters

Jan 2021 – Aug 2021

- Built a HTML content extraction system for use in a fake news detection pipeline by cross-referencing results from multiple Python libraries
- Extended the backend of an automated curated newsletter, informing subscribers of relevant industry trends while logging user engagement using AWS, Flask, and SparkPost
- Developed Python scripts to manipulate metadata and ensure string validity, supporting a facial recognition and image captioning pipeline

Automation Engineer · Statistics Canada

Sep 2019 – Dec 2019

- Developed Python tools for a standardization of English and French metadata variables using Natural Language Toolkit to reform variables from a many-to-many relationship to a one-to-one relationship

Data Analyst · Statistics Canada

Feb 2019 – Apr 2019

- Predicted manufacturing times of operations for over 400 parts using regression

PROJECTS

ArbHound

Feb 2024

Telegram Bot and Selenium + BeautifulSoup WebScraper

- Scrapes the web for profitable arbitrage opportunities and sends message notifications to 10+ connected users

OnlyOne

Dec 2023

React Native + AWS real-time word game

- Facilitates real-time cross-device connections using AWS API Gateway WebSockets and Lambda
- Optimizes costs through throttling, debouncing, and automatic clean-up timeouts for AWS DynamoDB

Memory Games ↗

Sep 2023

React Native memory game collection

- Applies graph theory concepts to dynamically generate random paths in a maze

ytSheetMusic ↗

Mar 2023

AWS EC2+S3, React and Flask Web App to convert sheet music from YouTube URL to PDF

- Identifies and isolates regions of interest using OpenCV Contour Detection, merging results to PDF
- Prevents sheet music duplicates by calculating structural similarity index between images
- Reduced result processing time from ~1 minute to instantaneous output by caching images in AWS S3

EDUCATION

University of Waterloo

Graduated 2022

BMath, Honours Computational Mathematics with Distinction (3.7/4.0 GPA)

- Minor in Computing, Minor in Combinatorics and Optimization
- **Relevant Courses:** Object -Oriented Software Development; Data-Intensive Distributed Analytics; Neural Networks; Algorithm Design and Data Abstraction; Logic and Computation; Data Warehousing and Mining

SKILLS & INTERESTS

- **Languages:** Python; JavaScript; C; C++; R
- **Technologies:** SQL; React; React Native; AWS; GraphQL; Flask; NumPy; pandas
- **Interests:** badminton; piano (classical and jazz); reading; chess; meditation; self-improvement