


LINDA ZHENG

UWATERLOO SOFTWARE ENGINEERING

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SKILLS SUMMARY

Languages: Python, Go, C/C++, SQL, Scala, Java, JavaScript, HTML, CSS, Matlab

Tools: Hive, Elasticsearch, Airflow, Amazon S3, Tensorflow, Heroku, Flask, Node.js, MongoDB, Grafana, Prometheus

WORK EXPERIENCE

Data Science Intern

September 2020 – Present

Shopify - Ottawa, ON

- Optimized help center workflow by classifying chat transcripts and proposing solutions to routing bottlenecks
- Prototyped a help center search engine using **Elasticsearch** that is accessible via a REST API on a **Flask** server, projecting a **10% traffic reduction** to support chat

Data & Relevancy Engineering Intern

January 2020 – April 2020

Wish (Context Logic) - San Francisco, CA

- Developed and tuned a product embedding model using **Tensorflow** and **GraphSAGE** (graph convolutional network) architecture that leverages image, text and structural features for graphs containing **7+ millions** of nodes
- Built a pipeline that generates GraphSAGE embeddings for a product recommender microservice written in **Go**, improving click-through rate by 30%
- Optimized random walk for web-scale graphs using an early stopping algorithm, reducing latency from 32 to 6 ms
- Designed and implemented an **Airflow** pipeline to generate daily click attribution reports

Software Engineering Intern

May 2019 – August 2019

Wish (Context Logic) - Toronto, ON

- Developed keyword extraction to simplify user queries using **word2vec** technique
- Tuned recommendations by adding **Solr** boosts to product fields stored in **MongoDB**, increasing GMV by \$20k/day
- Launched **A/B tests** and analysed the results using **HiveQL** in Treasure Data
- Built a Python package to cross-check Solr atomic updates with **S3** data and refactored Solr reindexing libraries

Web Developer

June 2016 – June 2018

HTBC Badminton Club - Ottawa, ON

- Developed an automated e-registration system, speeding up registration time from days to minutes
 - Created a queryable photo gallery using Google Visualizations API Query Language, boosting website views by **8%**
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PROJECTS

Multiplayer Online Tetris

2020

A multiplayer Tetris game where you can compete against your friends in real-time online rooms

- Connected players via **WebSocket** connections to a **Node.js** server deployed on **Heroku**
- Used **MVC**, **Factory**, and **Strategy** design patterns to ensure code flexibility and robustness

Scala Compiler

2019

A compiler that parses a subset of the Scala grammar into MIPS instructions

- Implemented nested procedures, closures, CYK parsing, type checking and garbage collection
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ACHIEVEMENTS

- TreeHacks Sustainable Energy Winner
 - SheHacks III Best Hackathon Design
 - 2x MIT Math Prize for Girls Qualifier
 - Euclid Top 5% in Canada
 - 4x American Invitational Mathematics Examination (AIME) Qualifier
 - 2x Canadian Open Mathematics Challenge (COMC) Repêchage Qualifier
 - American Mathematics Contest (AMC) 10A Top Female in Canada
 - Machine Learning Certificate, Coursera MOOC by Andrew Ng
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EDUCATION

Bachelor of Software Engineering, University of Waterloo

2018 - 2023

96.0% Cumulative GPA, 4x Term Dean's Honour List