LINDA ZHENG

WATERLOO SOFTWARE ENGINEERING

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SKILLS SUMMARY

Languages: Python, Go, C/C++, Scala, Java, SQL, JavaScript, HTML, CSS
Tools: Amazon S3, Airflow, TensorFlow, Tron, Solr, React, Firebase, Git, Arduino

WORK EXPERIENCE

Data & Relevancy Engineering Intern — January 2020 – April 2020

Wish (Context Logic) - San Francisco, CA

- Developed and tuned a pipeline that generates product embeddings for graphs with 7+ million nodes using GraphSAGE architecture (a graph convolutional network)
- Replaced the previous embedding model with the GraphSAGE model, leading to 30% better click prediction recall
- Introduced early stopping in random walk for graphs with 100+ million edges, reducing latency from 32 ms 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 for related product recommendation, increasing impressions by 1 million/day (+5%)
- Built a Python package with unit tests to cross-check Solr updates with S3 data to prevent data loss
- Implemented Solr boosting for product fields stored in MongoDB, increasing GMV by $20k/day
- Launched A/B tests and analysed the results using HiveQL in Treasure Data to confirm improvements

Web Developer — June 2016 – June 2018

HTBC Badminton Club - Ottawa, ON

- Created a queryable photo gallery using Google Visualizations API Query Language, boosting website views by 8%
- Developed an automated e-registration system, speeding up registration time from days to minutes
- Deployed a web app on Heroku to track badminton racket rentals using the MERN stack

PROJECTS

MNIST Handwritten Digit Recognition — 2019

- Trained a neural network to recognise MNIST digits using TensorFlow
- Developed convolutional layers and optimized the neural network, achieving 99.2% accuracy

Scala Compiler — 2019

- Wrote a compiler that parses a subset of the Scala grammar into MIPS instructions
- Implemented nested procedures, closures, CYK parsing, type checking and garbage collection

Smartphone Controlled Drone — 2018

- Built an Android app which sends HTTP requests to the drone via Wi-Fi
- Programmed a NodeMCU to function as both a PID controller and a web server to receive commands

ACHIEVEMENTS

- TreeHacks Sustainable Energy Hack
- SheHacks III Best Hackathon Design
- 2x MIT Math Prize for Girls Qualifier
- Euclid Top 5% in Canada
- American Mathematics Contest (AMC) 10A Top Female in Canada
- 2x Canadian Open Mathematics Challenge (COMC) Repêchage Qualifier
- 4x American Invitational Mathematics Examination (AIME) Qualifier
- ECOO Programming Contest City-Wide Top Female Team

EDUCATION

Bachelor of Software Engineering, University of Waterloo — 2018 - 2023
95.4% Cumulative GPA, 3-Term Dean's Honour List