# Linda Zheng

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## SKILLS

**Languages:** Python, C/C++, Go, SQL, Scala, Java, JavaScript, HTML, CSS, MATLAB
**Tools:** Flask, Node.js, Hive/Presto, TensorFlow, Airflow, Elasticsearch, AWS S3, MongoDB, Git

## EDUCATION

**University of Waterloo** | Bachelor of Software Engineering 2018-2023

- 4.0/4.0 GPA, 5x Term Dean's Honour List
- Relevant Coursework: Data Structures & Algorithms, Logic & Computation, Databases, Operating Systems

## WORK EXPERIENCE

**Facebook** | Software Engineering Intern May – Aug 2021 | Menlo Park, CA

- Developed compiler optimization passes in Cinder, Instagram's fork of CPython, increasing **capacity by 2%**
- Designed and implemented a low-level intermediate representation (IR) inliner with copy propagation
- Automated translation of **LLVM** IR to Cinder's IR and built an IR parser to enable inlining of C helpers

**Shopify** | Data Science Intern Sep – Dec 2020 | Toronto, ON

- Prototyped an **Elasticsearch** search engine with REST API, reducing **live chat traffic by 10%**
- Optimized helpdesk workflow by automating ticket routing using a **Naïve Bayes** classifier
- Revised Kafka eventing and configured JSON logging for Flask/uWSGI/NGINX app with Splunk integration

**Wish** | Data & Relevancy Engineering Intern Jan – Apr 2020 | San Francisco, CA

- Developed a **GraphSAGE** product embedding model using **Tensorflow** for graphs with **7+ million nodes**
- Built an embedding pipeline for a Go recommendations microservice, improving click-through rate by 30%
- Optimized web-scale random walk using early stopping algorithms, reducing latency from 32 to 6 ms
- Streamlined A/B testing by building an **Airflow** pipeline to generate daily click attribution reports

**Wish** | Software Engineering Intern May – Aug 2019 | Toronto, ON

- Tuned search results by adding **Solr** boosts to relevance scoring, increasing GMV by $20k/day
- Developed keyword extraction using **word2vec** techniques, increasing impressions by 5%
- Built a Python package to cross-check Solr atomic updates with **S3** data to prevent data loss

## PROJECTS

### Multiplayer Online Tetris

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

- Connected players via WebSocket connections to a Node.js server deployed on Heroku

### Cloud Optical Spectrum Analyzer

*A web app that allows you to view and control laboratory equipment such as optical spectrum analyzers*

- Constructed real-time interactive plots with 28k+ data points at a refresh rate of 1Hz via a Flask server

## ACHIEVEMENTS

- TreeHacks Sustainable Energy Winner
- SheHacks III Best Hackathon Design
- Machine Learning Certificate, Coursera MOOC by Andrew Ng
- 4x American Invitational Mathematics Examination Qualifier