

Languages

Python, Scala, GoLang
C++, C, Java, SQL, JavaScript
French

Tools

Tornado, Flask, MongoDB, Redis
DynamoDB, Lambda, SQS

Pandas, Scikit-Learn, NLTK
StatsModels, Keras, TensorFlow

Git, Linux


Education


University of Waterloo
BMath CS / Stats / CO Minor
Jan 2022

Technical Interests

Applied Machine Learning
Database Implementation
Compiler Implementation
Algorithms (Graph, Randomized)
Streaming Algorithms

More About Me!

My favorite music :) 

I take photos for fun 

Experience

Software Engineer Intern

Wish, San Francisco, CA

Jan - Apr 2020

- Designed and implemented a recommendation system for merchants to send products for the Fulfilled by Wish (FBW) program. Achieved a **0.76 F1 Score** on a set of manually labeled successful FBW products, recommending over **\$500,000 worth of products** weekly
- Implemented a new product packing algorithm **reducing FBW shipping costs by 14%**

Data Science Intern

Clearbanc, Toronto, ON

May - Aug 2019

- Designed a novel time series classification algorithm detecting erratic revenue patterns achieving a **0.87 F1 Score**
- Implemented a parallelized backtesting framework improving revenue forecast model backtesting speed by **> 20x**
- Worked on a merchant risk classification system to assign different (shorter) repayment periods to high risk merchants
- Developed new revenue forecasting models

Software Engineer Intern

IBM, Toronto, ON

May - Aug 2018

- Implemented API Key functionality supporting granular access scopes to **REST API (C#)** and web app (**JavaScript**)
- Developed a federated access dashboard to automatically configure permissions of new users accounts

Projects

VM - Vim Clone / C++

Because vim is a beautiful piece of software

- Supports most of vim's core features: movement, visual mode, search, repeat commands, macros
- Implemented a **MVC pattern**, using **nCurses** to display UI

Lightish Indigo - Chess Engine / C++

Better than all of my friends!

- Hybrid monte-carlo simulation approach like Alpha-Go Zero
- Trained a CNN to assign scores to board positions, then performing a monte-carlo tree search
- Reduced simulation time by 75% by implementing bitboards

Scala!? - (subset of) Scala Compiler / Scala

Inferior to Scala in every single way

- Compiles a subset of Scala to MIPS assembly
- Language supports function type assertions, garbage collection (Cheney), lexical scoping and closures
- Implements a CYK parser