

Education

University of Waterloo

Computer Science (9/2016 - 4/2021)

91 Average, Dean's List in 5 of 6 terms

Favourite Courses: Game Theory, Theory of Computation

Skills

Programming Languages

Python
JavaScript/Node
C/C++
Golang
Scheme

Frontend Frameworks

React
Angular

Data Science

NumPy
Pandas
Scikit-learn

Graphics and Visualization

OpenCV
OpenGL
d3.js

Cloud environments

AWS
Azure

Communication

Client pitches and presentations
Strong technical and informal writer

Interests

Ultimate Frisbee

I've played for my university's school team for three seasons.
I also played on NYU's team while living in New York.

Creative Writing

I write articles about sports and business topics that interest me.
I'm also a hobbyist short story writer.

Bike Rides

While in New York I biked to work every day, as well as to all five boroughs.

Experience

Data Engineer Munich Re

📅 9/2019 - Present

- Decreased search times by a factor of 10 in our hosted PDF viewer
- Developed custom visualization, navigation and annotation components for reviewing medical PDFs using PDF.js
- Automated build-and-deploy processes for hosted services using CI/CD pipelines

Data Scientist Munich Re

📅 1/2019 - 4/2019

- Researched and implemented a parallelized, clustering-based algorithm to reduce dimensionality in datasets with correlated features
- Developed black-box model interpretation and visualization tools in Python and React
- Evaluated alternative data sources using interpretable random forest models to reduce underwriting time

Software Developer Bonfire Interactive

📅 5/2019 - 8/2019

- Developed new features for the core procurement app with Angular and Node.js
- Kickstarted the consolidation of several backend services into a Node.js API
- Spearheaded the addition of an integration testing framework to ensure stability across Bonfire services

Projects

GNight Generalized knight simulator and visualizer

📅 7/2019

C++, OpenCV, d3.js

- Analyzed movement of general chess knights using BFS and Random Walk algorithms
- Built a path visualization module using OpenCV
- Implemented animated visualizations in d3 for the explorative post on my blog

GoCV Templated resume generator

📅 9/2019

Golang

- Built a resume templator to generate multiple views from common JSON data
- Supports TeX, HTML output with potential to add other formats
- Used as the basis for my personal site as well as this resume

Fantasy Baseball Predictive Model

📅 1/2018

Python

- Built a web scraper in Python to aggregate baseball box score data
- Constructed a neural net from the ground up using linear algebra primitives
- Analyzed the relationship between past seasons and future success

Teaching and Research

Research Assistant

📅 5/2019 - 8/2019

3D Images (Supervisor: Lesley Istead)

- Researched algorithms for consistent 3D line drawings
- Implemented a 3D image stylization algorithm in OpenCV

Teaching Assistant

📅 9/2017 - Present

Math and CS

- Organized and presented end-of-term review sessions for hundreds of students
- Prepared weekly review courses for first year courses
- Specialties: Functional Programming, Linear Algebra, Statistics