Nick Lemoing

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lemoing.ca
GitHub
LinkedIn

Education

University of Waterloo

Computer Science (9/2016 - 4/2021)

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

Favourite Courses: Theory of Computation, Science Fiction, Game Theory

Skills

Programming Languages

Python
JavaScript/Node
C/C++
Golang

Frontend Frameworks

React
Angular

Data Science

NumPy
Pandas
Scikit-learn

Graphics and Visualization

OpenCV
OpenGL
d3.js

Cloud environments

AWS
Azure

Everything else

MySQL
Docker
Git

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 various math, sports and business topics on my blog.

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

- Developed custom visualization, navigation and annotation components for reviewing medical PDFs in the browser
- Automated build-and-deploy processes for hosted services using Docker and CI/CD pipelines
- Orchestrated machine learning pipelines with Airflow

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 tools in Python and React
- Evaluated alternative data sources using interpretable random forest models

Software Developer Bonfire Interactive

5/2019 - 8/2019

- Developed new features for the core procurement app with Angular and Node
- Kickstarted the consolidation of several backend services into a Node 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 C++, OpenCV
- Implemented animated visualizations in d3 for the explorative post on my blog

GoCV Templated resume generator

9/2019

Golang

- Built a resume template engine to generate resumes from 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 Computer Science

- 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