

RAFAEL BARASH

25/10/1997 | <https://github.com/rafibarash> | 6531 N Crestwood Dr, Glendale 53209, USA | 414.704.7744 | baras015@umn.edu | <https://rafibarash.com>

Education

B.S. in Computer Science 09/2016 - present

University of Minnesota Twin-Cities, Minneapolis, USA

GPA: 3.49/4.0

Relevant Coursework: Algorithms & Data Structures II. Advanced Programming Principles. Machine Architecture. Applied Linear Algebra. Multivariable Calculus. Discrete Structures.

Technical Skills

Languages

Python

JavaScript

Java



Frameworks and Libraries

React.js

TensorFlow

Django



Work Experience

Software Engineering Intern 06/2018 – 08/2018

Optum - UnitedHealth Group, Minneapolis, USA

- Streamlined communication between business analysts and developers by creating an in-browser Gherkin editor which automatically updates CA Agile Central for all users.
- Developed view logic in React on top of a SpringBoot backend and Docker container.
- Followed modern Agile and ATDD practices using CA Agile Central, Jenkins, and Cucumber.

Full Stack Development 04/2017 - present

Humphrey School of Public Affairs, Minneapolis, USA

- Improved collaboration between a network of international researchers by building a website hosting descriptions and contact information for open-access urban datasets and models.
- Reduced time spent searching for relevant datasets by integrating data-querying and full-text search features.
- Automated dataset submission and maintenance by connecting a submission form directly to the database and building an admin portal for maintainers.

Projects

Diabetes Risk Dashboard Web App 07/2018

Optum Hackathon Project

- Full-stack web app that holds patient health information and runs patient data as features through a machine learning model to predict diabetes risk in real time.
- Created machine learning model with TensorFlow DNN_Classifier.
- Frontend created in React.js, graphed risk as a function of each feature using Chart.js
- Wrote custom API to serve TensorFlow model using Python and Flask

Machine Learning March Madness 03/2018

Personal Project

- Predicted winner of march madness games using TensorFlow machine learning model.
- Achieved 0.55 log loss and 72.4% prediction accuracy with basic linear classification using seed difference, improved to 0.45 log loss and 74% with neural network model.
- Trained models with regular season and tournament data from 2003-2017.

Planet Wars Strategy 12/2017

School Project

- Ranked 16th out of 125 engineers with Java strategy to take over the solar system.
- Built strategy over legacy code to visualize bot in simulation.
- Increased code efficiency by implementing multiple data structures including a HashMap and PriorityQueue.