Emad Ahmed

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EXPERIENCE

Notable Labs, Data Science Intern — May 19 – Aug 19
Foster City, CA

- Built SVM classifier to detect single cells from debris in flow cytometry experiments
- Performed dimensionality reduction with UMAP/t-SNE and achieved 88% accuracy
- Integrated classifier into data pipeline by implementing the scikit-learn estimator API, enabling automated flow analysis

Shopify, Software Engineering Intern — Sep 18 – Dec 18
San Francisco, CA

- Migrated Shopify Kit App (~ 200k merchants) from Amazon Web Services to Google Cloud Platform
- Successfully migrated a 1.5 TB database from RDS to Google Cloud Storage

Shopify, Software Engineering Intern — Jan 18 – Apr 18
Waterloo, ON

- Built tool to import 1 million customers via async jobs on Google Cloud Storage
- Reduced import time from 35 hours to 15 minutes by optimizing SQL inserts

PiinPoint, Software Developer Intern — May 17 – Aug 17
Waterloo, ON

- Architected report generation system including back-end API and front-end
- Integrated Points of Interest with Routing APIs to get driving/walking times

Evertz, Software Developer Intern — Sep 16 – Dec 16
Burlington, ON

- Built preview feature for digital replay video player from scratch
- Optimized video player by limiting DB queries, reducing bandwidth usage by 20%

RESEARCH (uWaterloo)

KIMIA Medical Imaging Lab — Sept 18 – Dec 18

- Researched viability of different implementations for one-class classification problems to classify malignant and benign kidney whole slide images
- Built data pipeline using OpenSlide to process images with tiles and implemented various algorithms for Positive Unlabeled Learning such as PU Bagging, standard classifiers and two step approaches

PROJECTS

Pneumonia Detection from X-Ray Images Keras, Scikit-learn, pandas

- Classifies pneumonia from chest x-ray images with a CNN model using Keras
- Used InceptionV3 architecture and data augmentation to achieve accuracy of 82%

What's the Menu Node.js, Express, MongoDB, Google Maps API

- Displays crowd-sourced reviews on individual menu items at popular restaurants
- Built with JS ES6 including Async/Await, destructuring and arrow functions

Education

University of Waterloo

Systems Design Engineering

Graduating April 2020

Skills

Data

Keras
TensorFlow
Scikit-learn
Matplotlib
flowCore
OpenSlide
NumPy
SQL

Languages

Java
Python
Ruby
JavaScript
C++

Tools

Google Cloud
AWS
Rails
React
Redux

Interests

Health Tech
AI
Social Impact Tech
Podcasts
Distributed Systems
Basketball