Emad Ahmed

# EXPERIENCE

[**Notable Labs**, Data Science Intern [](https://notablelabs.com/)](https://notablelabs.com/)  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 [](https://www.shopify.ca/)](https://www.shopify.ca/)  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 [](https://www.shopify.ca/)](https://www.shopify.ca/) 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](https://www.piinpoint.com/) [](https://www.piinpoint.com/) 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](https://evertz.com/) [](https://evertz.com/) 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**](http://kimia.uwaterloo.ca/)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

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**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