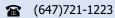
# KANIKA CHOPRA

#### **DATA SCIENTIST**







kanikadchopra.github.io

kanikadchopra

### Education

#### 2017 - 2022 University of Waterloo

Candidate for Bachelor of Mathematics

Majoring in Mathematical Finance

- Recipient of President's Scholarship
- Dean's List [Fall 2019]
- Excelled in Linear Algebra II, Probability, Statistics, Multivariable Calculus coursework

#### 2019 Coursera - University of Stanford

Machine Learning Certificate (In Progress)

#### University of Nov. 2018 Waterloo

Introduction to SQL Certificate

### Skills

#### PROGRAMMING LANGUAGES

- Python
- MATLAB
- SQL

#### **TOOLS**

- Pandas, NumPy, OpenCV, Rasterio
- Matplotlib, Plot.ly, Tableau
- Fastai, PyTorch, spaCy, Sklearn, nltk
- Jupyter Notebook (colab)
- HTML, CSS, Flasks
- Microsoft Azure
- Microsoft Excel

#### **COURSES COMPLETED**

- Fast.ai Deep Learning course
- MathWorks MATLAB Onramp

### **Hobbies**

Watercolor Painting, Pen Sketching, Hiking, Biking

#### Goals:

- Bike over 25 km
- Hike at every National Park in the U.S.A

## Work Experience

### **Data Science Intern**

09/2019 - Present

Goldspot Discoveries Inc.

- Implementing a Principal Component Analysis on satellite images to highlight the main components visible for further mineral composition analysis using Sklearn and rasterio
- Training an NLP text classifier to conduct a sentiment analysis on tweets related to the gold stock price; currently achieving 87% accuracy
- Manipulated insider score data into 20 bins and calculated the population stability index for a Plot.ly multi-plot visualization; deployed on internal website using Flask
- Used Plot.ly to create interactive time series plots to provide a stock price technical analysis with 20-, 50-, 200-day moving averages and relative indexes
- Automated paper trading by processing stock price data using Tiingo's API to implement a Reinforcement Learning model with paper trading using Interactive Broker's API

### **Strategic Initiatives Analyst Co-op**

01/2019 - 04/2019

Royal Bank of Canada

- Automated team reporting by determining appropriate metrics using direct GitHub verbiage stored in SQL server and then visualizing the data in an interactive dashboard on Tableau for senior management decisions
- Developed Python scripts using Selenium, Beautiful Soup and Requests for dynamic web scraping to find and download all article files from a website into a directory
- Used a Python library, PyPDF, to read article files, and clean and extract key data as JSON
- Visualized event registration data with a storyboard on Tableau for marketing purposes to display demographic and geographic analysis on registrants
- Completed data insight requests for 1000+ clients to analyse and create visualizations based on location and demographics using Excel

# **Projects**

#### **Posturizer** (OpenCV/Microsoft Azure)

09/2019

Hack the North 2019

Posturizer is a web app that takes a photo of a user, identifies their posture and speaks back providing appropriate advice

- Preprocessed collected training image dataset to recognize and blur out faces in the photo to preserve privacy and increase model's accuracy using OpenCV
- Trained a Microsoft Azure AI Custom Vision model with the pre-processed training data to classify five postures: leaning forward, back, right, left and good with 91.4% accuracy

#### **MissiNews NLP Analysis** (nltk/Tweepy/numpy/pandas)

- Collected and preprocessed 3000+ tweets from The Mississauga News scraped to remove stop words, and perform tokenization and lemmatization using nltk
- Identified the most frequent unigrams per month in tweets using Bag of Words
- Visualizing the data to be able to input a month and topic (e.g. crime) to compare monthly common unigrams and tweet sentiment using Plot.ly

# **Leadership Experiences**

#### Teen Mentor/Leader

09/2014 - 12/2018

Big Brother Big Sisters Organization

- Mentored and provided students from the Peel and Waterloo regions with fun activities to develop their interpersonal skills
- Organize activities for the weekly meetings between mentors and mentees