Vedant Kulkarni

+1 226-792-9127 | vedant.kulkarni@uwaterloo.ca | LinkedIn | GitHub | Podcast

EDUCATION

University of Waterloo   September 2019 – May 2024

Bachelor's of Mathematics in Mathematical Finance and Statistics, GPA: 3.9/4.0   *Waterloo, ON*

Awards: *President's Scholarship of Distinction, Dean's Honours List, Soccer Intramurals Finalist*

Relevant Coursework: *Real Analysis, Investment Science and Corporate Finance, Applied Linear Models*

TECHNICAL SKILLS

Languages: Python, SQL, R, HTML, CSS, JavaScript, MATLAB, Scheme
Technologies: Spark, PostgreSQL, Django, Jupyter, AWS, Kubernetes, Kafka, Airflow, JIRA, Git, Tableau
Libraries: Numpy, Pandas, Scikit-learn, Plotly, TensorFlow, OpenCV, Dlib, SciPy, Seaborn, Matplotlib, NLTK, Gensim

EXPERIENCE

Deloitte   May 2021 – Present

Data Science Intern   *Toronto, ON*

- Developed a custom **inclusive vocabulary checker** using Python which dynamically replaced Deloitte prohibited vocabulary and visualized it onto a Dash Web application for stakeholders.
- Built an algorithm using NLP to process and clean survey data in **over 55 languages** and classify it using various **sentiment analysis** techniques such as Google's BERT and NLTK's vader.
- Reduced number of data quality issues bug count analysis by creating a pattern recognition pipeline and communicated results to stakeholders using Seaborn.

Aviva Canada   September 2020 – December 2020

Data Science Intern   *Toronto, ON*

- Delivered five predictive Loss cost models through feature engineering, selection and hyperparameter optimization via XGBoost and GAM which led to a **15x performance improvement** in comparison to benchmark models.
- Implemented the functionality of splitting key model metrics categorically over all features using a Python script which improved analysis efficiency **upto 16 times** .
- Performed exploratory analysis on by-peril data, resulting in insights that helped the business prioritize and optimize modeling processes which resulted in equivalent of **one month saved** modeling time.

UW Data Science Club   September 2020 – December 2020

Project Mentor   *Waterloo, ON*

- Supervised the life cycle of **four Data Science projects** including exploratory data analysis, feature engineering, model building and evaluation.
- Assisted **over 20 students** with learning Python and various Data Science libraries including NumPy, Pandas and Scikit-Learn.
- Conducted office hours and provided resources to help understand and implement fundamental **Machine Learning techniques** including Neural Networks, Classification and Clustering.

PROJECTS

Ardor | *Python, Google Cloud Vision, Django*   February 2020

- Created a Django web application using Google Cloud's Vision API for Sentiment Analysis to give true feedback and suggestions to movies and songs by capturing user's emotions.
- Placed in the **Top 10** out of 500+ participants and 100+ teams at Hack the Valley, Toronto.

Kaggle: Student Test Score Analysis | *Pandas, Scikit-learn, Seaborn*   April 2020

- Conducted data analysis, exploration and feature engineering on a student test score dataset and used Linear Regression to develop EdTech tools.
- Developed a Learning Management System which **accurately predicts** the letter grade test scores of a student.

Coro-nah | *Python, OpenCV, Dlib, Darknet*   March 2020

- Built the world's first and only visual cough detector by training custom image datasets through the open-source deep neural network, Darknet.
- Through facial recognition- with consent, the database provides the identified user's travel history and based on risk levels, alerts authorities to ensure checkups for extra protection.