

VIRAL PATEL



SKILLS

- Programming Languages: Python, JAVA, C++, C
- Libraries: SkLearn, Numpy, Pandas, Keras, Matplotlib, OpenCV, Seaborn, Tensorflow
- Frameworks and Tools: Django, Docker, Flutter, Postman, Flask, REST API, JIRA, MATLAB, Linux
- Web Technologies: HTML 5, CSS, JS, WordPress, React
- Data Management: SQL, MongoDB, PostgreSQL
- Management: Teamwork, Leadership, Fluent in Communication, Time Punctual, Presentation, Selfmotivated, Eagerness to Learn, Enthusiasm

EXPERIENCE

Industry Internship Project

City of Ottawa - PDC

August 2020 – December 2020

- Developed an Android-based "Waste Advisor Application" using Flutter which classifies the waste images.
- Trained Deep Learning models using Keras (InceptionV3, VGG) and Teachable Machine, achieved 80% accuracy.
- Deployed a model using Starlette to create RESTful API, containerized with Docker and hosted on GCP.

Data Science Intern

KataniTech

April 2020 - August 2020

- · Worked in a Startup having a team of ten members, contributed on the Back-end development.
- Extracted data using Tweeter API to perform Data Analysis and **NLP** to extract the insights from tweets.
- Worked on AWS and MongoDB services for Database Management and cloud deployment.

Machine Learning Co-op

PRL, Department of Space

February 2019 - May 2019

- Worked under the guidance of the Scientist and implemented Machine Learning algorithms to perform **Classification** on the moon surface's **Multispectral** image-data having a size of **2TB** and achieved **95%** accuracy.
- Used MATLAB for Dataset formation, Graph plotting and Map creation.

SELECTED ACADEMIC PROJECTS

Mouse Cursor Controller Using Facial Gestures [Python, Numpy, Pyautogui, CV2, Dlib]

- Developed a <u>Project</u> to replace the traditional mouse with the human face and eye movements.
- Used a Dlib library's **Shape Predictor** method to estimate the pose of a face.

Quantitative Calculation of Energy Consumption [Python, SKlearn, Pandas, keras]

- Developed a <u>Program</u> using Data Exploration, Statistical Analysis, Feature Detection, Regression and Classification(KNN, CART, SVM, ElasticNet, ExtraTreesRegressor, RFC).
- Achieved 96% accuracy using Random Forest algorithm for a prediction of Heating load and Cooling load.

Credit Card Fraud Detection [Python, Numpy, SKlearn, XGboost]

- Performed Data Analysis and Classification on a Bank Dataset to detect Fraudulent Transactions.
- Compared Algorithms (Decision Tree, KNN, Logistic regression, SVM, RFC, XGBoost) by using Test Parameters as Accuracy, F1-Score, Confusion Matrix and achieved 99% accuracy and 78% F1 Score with KNN.

Best Neighborhood in Toronto [Python, BeautifulSoup, SKlearn, Folium]

- Developed a <u>Program</u> to find a best location to open a restaurant in Toronto using Clustering algorithm(K-Means).
- Foursquare API used to get geographic data of Toronto.

EDUCATION

Master of Systems Science, University of Ottawa

GPA: 3.87

January 2021

 Coursework: System Optimization and Management, System Integration, Artificial Intelligence, Modelling and Simulation, Mobile Commerce Technologies, Transcript

Bachelor of Computer Engineering, Indus University

GPA: 3.8

May 2019

· Coursework: Data Structure and Algorithms, Database Management, Data Mining, Object Oriented Programming

ACHIEVEMENTS AND AWARDS

Terrification: IBM Data Science Professional [Data Analysis and Visualization, Database for DS, Machine Learning]

Q Volunteering: Coordinated Technical events during four years of bachelors including TechFest and Coding Events