GAURAV MUDBHATKAL

MANAGEMENT ENGINEERING AT THE UNIVERSITY OF WATERLOO

SKILLS

Programming Languages: Python, Java, Scala, HTML/CSS, R, C++, JavaScript

Data/ML: pandas/NumPy, scikit-learn, Keras/TensorFlow, NLTK/gensim/spaCy, Spark, Tableau/Excel

Tools and Technologies: Git, Linux, Airflow, Jenkins, Docker, Jupyter/Zeppelin, Anaconda, Maven, Google Cloud, jFrog

Project Management: Scrum, JIRA, Confluence, Communication(French/Hindi), Problem Solving

WORK EXPERIENCE

Data Scientist, AML Insights · RBC - Royal Bank of Canada

Sept. 2019 to Dec. 2019 · Toronto, Canada

- Built an in-house capability to gain insights of Suspicious Transaction Reports(STRs) using Natural Language Processing
- Cleaned, lemmatized and tokenized documents using NLTK, generated embeddings using Doc2Vec
- Designed a neural network-based multi-label text classifier with Keras attaining accuracy of 95%
- Performed Entity Recognition with spaCy to extract important details from reports, generated summaries using gensim
- Demonstrated clustering of client data with algorithms such as K-Means and HDBSCAN using Jupyter notebooks
- Collaborated with the DevOps team to build a Jenkins pipeline, automating model deployment to Artifactory

Data Analytics Co-op · BBM - BlackBerry Messenger

Jan. 2019 to Apr. 2019 · Mississauga, Canada

- Simplified ETL processes in an Apache Spark environment with Scala- transforming raw data into tables written to BigQuery
- Optimized the ETL pipeline by scheduling jobs in Apache Airflow
- Investigated sudden spikes in data using Tableau and Apache Zeppelin
- Enhanced Continuous Integration and Deployment of the pipeline by providing easier access to Jenkins scripts via version control
- Configured dependencies in Maven to generate complete documentation of the codebase

Junior Developer · Perpetuuiti

May 2018 to Aug. 2018 · Pune, India

- Developed a CLI-based Object Detection application using the Deep Neural Networks module in OpenCV
- Gained valuable knowledge in Machine Learning concepts through online courses and material provided by the mentor
- Built, trained and tested Convolutional Neural Networks from scratch using **Keras** and **TensorFlow** to detect objects of classes present in the CIFAR-10 dataset, achieving an accuracy of 92.3%

PROJECTS & EXTRACURRICULARS

Personality Matching Application

- Created an application using Tweepy to display the top 5 similar traits between two people based on their tweets
- Implemented IBM Watson's Personality Insights API to find out and compare the traits of both the personalities

Stock Prediction Model

• Built a neural network using the concept of LSTM(Long Short-Term Memory) in Keras to predict stock prices based on historical data

Kaggle Competitions

- Predicted the survival of passengers on the Titanic- EDA and feature engineering with **pandas** and **numpy** attained an accuracy of 81.1% using **Support Vector Machines**
- Designed a Convolutional Neural Network using Tensorflow and Keras to recognize handwritten digits with an accuracy of 98.8%

WATonomous - Infrastructure Core Member

- Migration of the development environment from VMs to **Docker** containers
- Visualization of ROS messages using RViz

Hotel Management System

• Developed a Hotel Management System in **Turbo C++**, which allowed the user to check availability, book rooms, modify/cancel reservations and view customer records/reviews using OOP and File Handling

Toxic Comment Classifier

• Detected toxicity level of online comments using pre-trained Bidirectional Transformer(BERT) models

EDUCATION

University of Waterloo, Waterloo, Ontario, Canada BASc Honors Management Engineering 2022