Pinakin Nimavat

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Technical Skills

Languages: Java, Python, SQL, R
Artificial Intelligence: Statistical Reporting, Model development, Data mining, Applied Mathematics, Neural networks, NLP, ML algorithms
Database Management: MySQL, ETL, Data integration, Data governance, Data Streaming, Apache kafka
Developer Tools: Git, Apache hadoop, Pycharm, Jupyter notebook, Visual Studio, Tensorflow, KNIME

Experience

Intern Data Analyst   Jul 2019 – Jan 2020
BlinkLink Solutions Pvt. Ltd.   *Gujarat, India*
- **Technologies**: Pandas, Matplotlib, Scipy, Statsmodel ,MySQL, Apache Spark, Seaborn, Python
- Filtered and cleaned data with automated and manual data reviews and transformed raw data into actionable insights for internal teams
- Compiled data and prepared spreadsheets to execute assigned deliverables.
- Learned processes and key controls governing day-to-day activities of cost basis function to minimize operational risk.
- Helped clients by understanding strategic implications of geographic and industry trends.

Teaching Assistant - Advanced Data Mining   Jan 2022 – Present
Illinois Institute of Technology   *Chicago, IL, USA*
- Assisting the professor in analysing and grading students' assignments and projects.
- Providing in depth individual guidance to students for their end semester project.

Projects

Drowsiness Detection   Mar 2021 – May 2021
- **Technologies**: OpenCV, Pandas, MobileNet, keras, HaarCascade, numpy
- Used OpenCV library to capture video and performed analysis for detecting drowsiness and yawning.
- Mouth-Aspect-Ratio and Eye-Aspect-Ratio were calculated using dlib library and using $shape\_predictor\_68\_face\_landmarks.dat$ file
- An alarm message (sound and text) was triggered whenever the threshold value was crossed.

Crime analysis and prediction   Mar 2021 – May 2021
- **Technologies**: Google Colab, Keras, FBProphet, pandas, numpy, matplotlib, CNN, SVR, random forest
- Created single step time steps and 30 step time steps as input for time series forcasting. Performed descriptive and Explanatory Data analysis.
- Used FBProphet, CNN, SVR, RNN, RNN - LSTM, MLP-classifier to predict number of crimes for future.
- Approached LSTM with rolling window technique. Compared the accuracy of all the models and got highest R squared score of 0.625 for MLP Classifier.

De-noising the Dirty Documents   Aug 2018 – May 2019
- **Technologies**: Theano, OpenCV, Numpy
- Developed an application which removes the noise such as various stains and wrinkles from the pages.
- Developed a Convolution Neural Network model of six conv2d layers with activation function 'LeakyRELU'.
- Created custom loss function and adam optimizer to train the model in efficient manner. Able to get 94% accuracy.

Query to Text   Jul 2020
- **Technologies**: BeautifulSoup, re, spacy, GloVe
- Efficiently worked on a python script by using spaCy library (Advanced NLP), where it returns results by locating the nearest Wikipedia article when we enter some word.
- Used praw (python reddit API wrapper), Wikipedia API wrapper and beautiful soup to parse the web page related to the input text.

Covid19 - People's perception from twitter   Aug 2021 – Dec 2021
- **Technologies**: Vader Sentiment, Pandas, XGB, re, WordCloud, Spacy, Gensim, Beautiful Soup
- Annotated texts using LightTag. Created heatmap using pearson's correlation, density plot and histogram for char count and average word length as a part of EDA.
- Used VADER sentiment analysis to get polarity scores to quantify the intensity of emotion of texts.
- Applied and fine tuned XGB classifier and Gradient Boosting classifier for binary classification task. Able to get 80% of accuracy with gradient boosting and 82% accuracy with XGB.

Education

Illinois Institute of Technology - IITC   Jan. 2021 – Present
Master's in Computer Science   *GPA: 3.5, Chicago, USA*

Gujarat Technological University - ADIT   Aug 2015 – May 2019
Bachelor's in Engineering in Computer Engineering   *GPA - 3.87, Gujarat, India*