Pinakin Nimavat

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Skills

Languages: Java, Python, R
Artificial Intelligence: Statistical forecasting, Predictive Modeling, Statistical programming, Applied Mathematics, Hypothesis testing, Natural Language Processing, Neural nets, Quantitative analysis, Big Data, Machine learning
Database Management: MySQL, Hive, Apache kafka, Sqlite3, PostgreSQL, MongoDB, Datagrip
Developer Tools: Pytorch, Spark, Hadoop, Keras, Tensorflow, Tableau, Pycharm, KNIME, AWS, Django, Flask, Git

Experience

Intern Data Analyst Jul 2019 – Jan 2020
BlinkLink Solutions Pvt. Ltd. *Gujarat, India*

- 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; able to get 83% accuracy.

Crime analysis and prediction Mar 2021 – May 2021

- **Technologies**: Google Colab, Keras, FBProphet, pandas, numpy, matplotlib, Convolution neural network, Support Vector, random forest
- Created single step time steps and 30 step time steps as input for time series forcasting and performed descriptive and explanatory data analysis.
- Used FBProphet, convolution neural network, Support Vector Regressor, Recurrent Neural Network, RNN - LSTM, MLP-classifier to predict number of crimes for future.
- Used LSTM with rolling window technique and compared the accuracy of all the models, to got highest R squared score of 0.625 for MLP Classifier.

De-noising the Dirty Documents Aug 2018 – May 2019

- **Technologies**: Theano, OpenCV, Numpy, Neural Net, Deep architecture
- 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 with a 94% accuracy level.

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 heatmaps 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, to get 80% 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*