Kartik Ullal

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EDUCATION

Master's of Science, Data Science Expected May 2023
Northeastern University, Khoury College of Computer Sciences, Boston CGPA: 3.78/4

- Related Courses: Linear Algebra and probability for Data Science, Algorithms, Introduction to Data Management and Processing, Supervised Machine Learning, Natural Language Processing

Bachelor's in Engineering, Information Technology June 2021
Mumbai University, Thadomal Shahani Engineering College(TSEC), Mumbai CGPA: 3.71/4 (9.18/10)

- Related Courses: Database Management Systems, Data Mining and Business Intelligence, Artificial Intelligence, Big Data Analytics, Object Oriented Programming

EXPERIENCE

Web Developer Intern June 2020 - July 2020
Prayaas Corps, Jaipur, Rajasthan

- Developed a Covid-19 webpage to showcase work done for people during the Covid-19 crisis using HTML5, CSS3, and WordPress
- Collaborated with Social Media Manager to ensure alignment with the website and social media presence and increased views by 6%
- Taught 40 students mathematics in Prayaas ki Paathshaala(School) initiative

Database Administrator Intern June 2019 - December 2019
Navlakhi Education, Mumbai, Maharashtra

- Designed database using MySql for JEE testing software and Mumbai Fashion Academy website
- Managed a team of six interns to efficiently implement and integrate the database using PHP
- Arranged five meetings with Mumbai Fashion Academy to gather schema requirements and built strong client relations

PROJECTS

Predicting Depression, Stress, and Anxiety scores, Northeastern University September 2021 - December 2021
Github Link: DASS Prediction

- Coordinated with two engineers to build a machine learning model to predict the scores for depression, stress and anxiety from the DASS survey, using only personality traits and demographic data
- Preprocessed and cleaned the data to make it fit for prediction, and visualized different parameters to find high correlation with depression, stress and anxiety scores
- Implemented a StackCVRegressor Algorithm, that used predictions made by Lasso regression, Ridge regression, ElasticNet regression, Gradient Boosting regression, LightGBM and XGBoost regression as features to predict the scores, with an RMSE of 10.

Comparative Study of the efficacy of Machine Learning Algorithms, TSEC August 2020 - May 2021
Github Link: Comparative Study **Publication:** Comparative Study

- Collaborated with two engineers to analyze LSTM, k-NN, Random Forest, SVR, and ARIMA models to compare the effectiveness for prediction on stock markets over 3 datasets
- Utilized Python libraries, such as NumPy, Pandas, Scikit-Learn, and MatplotLib and evaluated each model by comparing the root mean squared error (RMSE) and mean absolute percentage error(MAPE)
- Examined the models, and concluded; ARIMA gave the best performance relative to other models with a 10% improvement in the RMSE and MAPE

Detection of Covid-19 using Chest X-rays, Hack India Crisis Hackathon March 2020 - April 2020
Github Link: Covid-19 Detection

- Cooperated with a team of four engineers to detect the presence of Covid-19 among patients with the classification abilities of Dense Convolutional Neural Networks (DenCOvseNets) on Chest X-rays
- Integrated, preprocessed and resized images of five different datasets to form a complete dataset of 17,194 samples of chest X-rays
- Trained the classification model with different train-validation split ratios and achieved an accuracy of 93.496% on the testing data

TECHNICAL KNOWLEDGE

Programming Languages: R, Python, SQL
Skills: Numpy, Pandas, Scikit-learn, matplotlib, ggplot2, Tensorflow, Keras, Deep Learning, Machine Learning, Hadoop, Tableau, PowerBI, Pytorch, Natural Language Processing, Data Analytics, Data Visualization, SAS, Excel, NoSQL
Certifications: Machine Learning by Stanford (Coursera)