ARAVINDH GOWTHAM

Boston, MA| (857)-210-7009| bommisetty.a@northeastern.edu |LinkedIn |Github

EDUCATION

Northeastern University (Khoury College of Computer Sciences), Boston, MA

Candidate for Master of Science in Data Science (**GPA: 3.83**) Sep 2021- May 2023 (expected)

Relevant Courses: Supervised Machine Learning, Natural language Processing, Data Management and Processing, Algorithms, Unsupervised Machine Learning and Data Mining

Experience: Working as Undergraduate Teaching Assistant for CS2810- Mathematics of Data Models

Shiv Nadar University, Greater Noida, India

Bachelor of Technology in Mechanical Engineering (**Minor in Mathematics**) July 2016- June 2020

- Relevant Courses: Machine Learning, Linear Algebra, Probability and Statistics, Calculus, Analysis and Business Modeling

TECHNICAL SKILLS

Languages: Python, R, SQL, MATLAB

ML/AI: NumPy, Pandas, Matplotlib, Scikit-learn, TensorFlow, PyTorch, NLTK, Tableau

Big Data: Elasticsearch, Logstash, Kibana, Apache Spark, MLlib, Spark Streaming, SparkSQL

PROFESSIONAL EXPERIENCE

Everlytics Data Science, Bangalore, India

Data Science Intern *Sep 2020 – Feb 2021*

- Worked as part of product development team of predictive maintenance solution hosted by Elastic Stack
- Deployed time series forecasting (FbProphet) models for network logs with MAPE of 70%
- Implemented anomaly detection models as part of predictive maintenance solution
- Worked on multiple APIs in python necessary for internal product development

SITAMS, Chittoor, India

Summer Research Intern *January 2020 – May 2020*

- Developed two regressor models with 3 algorithms each (Linear, XGB and Random Forest Regressors)
- One set of models for area of delamination and other to find position of the crack in Laminated Composites
- Random Forest Regressor gave best generalizability in estimating area of the delamination (RMSE- 0.0163, MAE- 0.011)

PUBLICATIONS

- Mohan Bharath B., **Aravindh Gowtham B.**, Akhil M. (2022) "**Neural Abstractive Text Summarizer for Telugu Language**". Soft Computing and Signal Processing. Advances in Intelligent Systems and Computing, vol 1340. Springer, Singapore. https://doi.org/10.1007/978-981-16-1249-7_7
- **Aravindh Gowtham Bommisetty**, Ramesh Gupta Burela "**Stochastic Analysis of Natural-Fibred Composites"** AIP Conference Proceedings **2317**, 020022 (2021); https://doi.org/10.1063/5.0036276

PROJECTS

Loan Default Risk Prediction:

- Built ML algorithms such as logistic regression, Decision Trees, Random Forest and lightGBM with best AUC of 0.788
- Key features which influence underlying risk of a loan were extracted through feature importance analysis
- Performed EDA for insights, SMOTE to balance the data and feature engineering

Live Image Captioning:

- Implemented Image caption generator using a hybrid CNN-RNN model, and LSTM in RNN for language
- Performed sensitivity analysis to get best α, η and evaluated the model using metrics like perplexity and NPMI.
- Compared 200 of the captions generated for test data and achieved 90% accuracy

Topic Modeling on Amazon Reviews:

- Discovered category of products solely based on reviews using LDA technique
- LSTM was the best model on word-level assessment on both toxic vs non-toxic and multi-label classification
- Compared the results with PCA and k-means clustering model

Price Prediction of Used Cars:

- Developed multiple linear regression, Decision Tree, LightGBM and XGB regressors (RMSE-2851$, R^2- 90%)
- After hyperparameter tuning using Bayesian parameter estimation, XGB was the best model
- The dataset consists of over 3 million records of real-world cars and 66 features