KISHORE TUMARADA

Apt 606, 4045 Linkwood drive, Houston, Texas - 77025

Mobile : 832-880-8818 **Email :** kishore.t04@gmail.com **LinkedIn** : linkedin.com/in/kishoret04

EDUCATION

- **Master of Science in Statistics and Data Science GPA 3.89** **Expected Graduation - May 2021**
  University of Houston – Houston, Texas
- **Bachelor of Technology in Electronics and Communication Engineering** **April 2008**
  National Institute of Technology – Calicut, India

COURSEWORK

- Statistical Learning and Data Mining, Programming for Data Analytics, Probability and Statistical Computing,
- Spring 2020 - Deep Learning and Neural Networks, Applied Statistics and Multivariate analysis, Information Visualization, Case Studies in Data Science

SKILLS SUMMARY

Data Science and Statistics: Data wrangling, exploratory data analysis, data visualization, Probability distributions, Joint probability distribution, statistical inferences, Hypothesis testing, Markov chains, process simulation

Machine Learning: Neural Networks, knn classification, Principle Component Analysis (PCA), Random forest, Bagging, Boosting, Decision trees, Kmeans, Kernel K means and Hierarchical Clustering, Support vector machines (SVM), Linear regression, Kernel ridge regression and Logistic regression;

Programing Languages & Tools: Python - Numpy, Pandas, matplotlib, seaborn, Scikit learn, nltk libraries; R – ggplot2, dplyr, tidyverse, Rmarkdown; MySQL; C#, C++; Jupyter, Spyder, Google Colab; R studio and Rcloud; Tableau, MS Excel.

PROFESSIONAL EXPERIENCE

- Experience as a credit analyst for **3.5 years**, Instructor for **4.5 years** and Software Developer for **2 years.**

Credit Analyst and Assistant Manager
State Bank of India, Visakhapatnam and Hyderabad, India **Jan 2016 – Jul 2019**

- Developed data driven predictive credit models using logistic regression, weights of evidence, correlation, dimension reduction, to forecast prospects for loan enhancement and probability of default, which resulted in decrease of Non-performing assets (NPA) of branch from 10.2% to 8.1%
- Applied Monte Carlo simulations and statistical analysis to predict the collateral asset's operating income and market value; estimate key parameters, such as probability of default, loss given default and yield degradation risk, based on entire loss distribution deduced from market factors and property-risk factors
- Analyzed Financial Statements of Firms and individuals, including Fund flow analysis, Ratio analysis, Trend Analysis

Mathematics Instructor
Chanakya Academy, New Delhi, India **Mar 2011 – Dec 2015**

- Taught students in Mathematics, including Linear algebra, calculus, Multivariate Analysis, Statistical inference for National level Public Services Examinations to classes with 40-50 size. I taught below topics in mathematics:
  - 2011-2012 Linear Algebra, Calculus, Ordinary Differential Equations
  - 2012-2013 Probability, Calculus, Partial differential equations
  - 2013-2014 Probability, Statistical Inference, Multivariate Analysis
  - 2014-2015 Statistical Inference, Multivariate Analysis, Sampling Theory

Software Developer
Cybage Software Pvt. Ltd, Hyderabad and Pune, India **Jul 2008 – Oct 2010**

- Developed modules to send trigger based personalized notifications and newsletters using ASP.net and SQL
- Worked with a team distributed across various organizations as a vendor to Microsoft
- Analyzed business requirements and prepared high-level design and technical specification by interacting with client.

RELEVANT PROJECTS

- **MNIST data: Hand-written digits -** reduced dimensions using PCA. Trained SVM and performed grid search to optimize model (hyper parameter tuning) and cross validated using k-fold. Achieved AUC score of >90%.
- **Stock market price prediction** - Extracted 5 years closing price of stocks for 10 financial sector companies from yahoo finance with an aim to predict the 11th company's closing price. Trained Kernel ridge regression model(KRR) with hyper parameter tuning. Achieved RMSE to avg(y) ratio of 0.01. Link: GitHub .Trained an SVM to predict the trend of stock price on 11 th day based on moving average price previous days and achieved AUC score of 80%. Also predicted the stock price, with KRR and achieved RMSE to avg(y) ratio of 0.02. GitHub
- **Assessing Q-Q plot variations and testing normality -** Explored the use of lineup protocol to improve graphical assessment of distributions and compared its power with classical normality tests - standard Q-Q plot, Shapiro wilk test. Applied this lineup protocol to assess other distributions - exponential distribution. Link: GitHub