HARIPRASAD VAVILALA

Email: mr.harish977@gmail.com **LinkedIn**: https://www.linkedin.com/in/hariprasad-vavilala-07656b163/

Mobile: +91-7306599554

EDUCATION

- Secured a Master's degree from Osmania University in 2018 with 75%.
- Secured a Bachelor's degree from Satavahana University in 2016 with 91.3%.

WORK EXPERIENCE

CSIR –IICT (Biotechnology) (Nov 2019 to Date)

Data Analyst

- Developed an optimized model for forecasting malaria cases using Bayesian Structural Time Series.
- Extracted relation of google search terms with covid-19 cases using Bayesian regression.
- Worked with Vector Auto Regression (VAR) time series model to predict the prevalence of dengue disease for Kerala state.
- Conducted comparative study through major machine learning models like Xgboost, LSTM, SVM regression.
- Exploring time series models in collaboration with CSIR-4PI, Bengaluru, and NIPER, Guwahati.

Aurora's Degree & PG College (July 2018 to May 2019)

Assistant Professor

- Taught Statistics to Bachelor's and Master's students. Also educated Master's Students in SPSS and Python programming language as part of the curriculum.

PUBLICATIONS

- Weather integrated malaria prediction system using Bayesian structural time series model for northeast states of India.(https://doi.org/10.1007/s11356-022-20642-y)
- An Internet-Based Infoveillance System for Prediction of COVID-19 Cases using Bayesian inference In India (under review).
- Weather Integrated deep learning model for prediction of dengue incidence in India (under review).

PROJECTS

Forecasting Malaria Cases in Northeast Region of India

- Gathering Malaria case data and weather parameters related to mosquito life cycle.
- Assess the quality of the data to serve its purpose.
- Exploring the association among weather and malaria cases.
- Model selection and Prediction of malaria cases.

Prediction of Covid-19 cases using Google trends

- Collecting google trend data related to symptoms of Coivd-19
- Visualization of relations among symptom keywords and covid-19 cases.
- Prediction of covid cases using Bayesian regression.

Forecasting Dengue Cases in Kerala

- Visualization of time series and inspecting the seasonality and trends
- Explored relationships among multiple time series using cross-correlation analysis.
- Performed several hypothesis tests like Augmented Dicky fuller's test for stationarity.
- Trained VAR to Forecast one-year future dengue cases.

SKILLSET

- **Office Tools**: MS- Excel, PowerPoint, MS Word.
- **Statistical Software:** R, SPSS, Python (Pandas, NumPy, matplotlib, Sklearn).
- **Regression Analysis:** Linear Regression, Multiple Regression, Non-linear Regression, Spike and Slab regression, Bayesian Regression.
- **Classification Technique:** Logistic Regression, KNN, SVM, Decision Tree, Random Forest Classifier, ANN.
- **Cluster Analysis:** K-Means, Hierarchical (Agglomerative, Divisive).
- **Multivariate Analysis:** Principal Component Analysis, Linear Discriminant Analysis
- **Time-series Analysis:** ARIMA, VAR, Bayesian Structural time series

WORKSHOPS / DEVELOPMENT PROGRAMS

- Completed Certificate Course on **Machine Learning** using **Python** at Udemy.
- Attended a Two-Day Workshop on **Emerging Trends** in **Statistics** organized by Dept. of Statistics, Aurora's Degree and PG College, Hyderabad.
- Attended a One-Week Faculty Development Program on **Python Programming** organized by Dept. of Statistics, Osmania University, Hyderabad.
- Participated in the one-day training program on **Attitude & skills for Competitive World** at Osmania University, Hyderabad.

CERTIFICATIONS

- **Statistical Data Visualization** in Python from Coursera (Aug 2020)
- **MS-Excel** for **Data Analysis** from Udemy (June 2020)
- **Machine Learning** from Coursera (May 2020)
- Completed Certificate Course on **Data Analysis** at CSIR - IICT (Aug 2019 to Oct 2019)
- Machine Learning A-Z: Hands-On Python & R In **Data Science** from Udemy (Jul 2019).

ACHIEVEMENTS

- Awarded on Mathematics day for designing webpages using HTML to get **Automatic Magic Squares** in B.Sc during the year 2015-16.
- Awarded with Scholarships namely
    - Central Sector Scholarship (B.Sc.)
    - UGC Rank Holder fellowship (M.Sc.)
- Awarded with ICMR SRF fellowship for PhD

DECLARATION

I hereby declare that the above-mentioned information is true to the best of my knowledge.

Place: Hyderabad

Date: 30 / 08 / 2022 Hariprasad Vavilala