Manikant Thatipalli

DATA SCIENTIST, AI & ML · DIGITAL PROCESS EXCELLENCE

5-91-26S, Kondapur, Hyderabad, India, 500084

☐ (+91) 9800197293 | ✉ thatipalli.manikant@gmail.com | in www.linkedin.com/in/tmk200896

Skills & Coursework

Programming Skills	Python, R programming & C
Other Skills‖Tools‖Services	GCP, Azure, Datarobot, Matlab, NLTK, Keras, Numpy, Pandas, Scikit-Learn, ggplot, Seaborn & Machine Learning
Relevant Coursework	Machine Learning by **Andrew Ng**, Regression & Time Series, Statistical Inference, Design & Analysis of Algorithm, Sequence Modeling & Hyperparameter Tuning

Experience

Dr.Reddy's Pharmaceuticals, Ltd.   *Hyderabad, India*

DATA SCIENTIST · MANUFACTURING & QUALITY DOMAIN   *Jul. 2018 - Current*

- Part of Digital Process Excellence team which is the main component of the organization that leverages Digital and Analytics into the business that works in a Center of Excellence business model and provides Advanced Analytics driven solutions to the business.
- Helped the manufacturing plant achieve Digital Lighthouse status with a strong backing from Data driven usecases and real time streaming of manufacturing data in a meaniful and actionable way using Business intelligence dashboards
- Designed,executed and upscaled the **Yield improvement program** across the plants by using Machine learning based techniques (SVC, TFIDF, Word2Vec) to enable the plant team identify the critical operational parameters responsible for achieving consistent high yields which sum upto a potential 10 crores of savings
- Designed an end to end automated Machine learning solution by leveraging the IOT data based out of datalakes that can enable the operator in setting up a manufacturing machines and reduce batch cycle times by 45-50%
- Implemented an automated parsing engine to parse FDA 483 letters from FDA website using advanced Python libraries and applied various Text classification based techniques under NLP stage which achieved near-human level performance in classifying the documents that can immensely help the Quality team reduce their man-hours during FDA Audits in understanding the historical behaviour of an Investigator
- Developed an easy-to-use AutoML based Yield improvement application to target & enable the non-technical users from the plant team render the initial insights

Undergraduate Research, Machine Learning Lab (Prof. J.Maiti)   *IIT Kharagpur*

PREDICTION OF ORGANIZATIONAL ACCIDENTS IN A STEEL PLANT · SAFETY ANALYTICS   *Mar. 2017 - Nov.2017*

- Developed ML models based on **Random Forest, EVTree & XGBoost** to classify Organizational accidents in a steel plant
- Applied feature selection techniques like **Chi-squared test, Random Forest** to identify important features and achieved a incident prediction accuracy of **84%**

LANXESS India Private Limited   *Bharuch, India*

UNDERGRADUATE INTERN · UTILITY CONSUMPTIONS & IMPROVEMENT PROJECT   *Mar. 2017 - Jun. 2017*

- Comprehensive study of **LPT(Liquid Processing Technologies)** plant, its different subunits and worked out related PFD's
- Implemented material and energy balances to calculate utility consumptions in different units of LPT plant
- Provided suggestions to reduce **Steam** consumption by 66% per annum

Graduate Research · Master Thesis (Prof Arnab. Atta)   *IIT Kharagpur*

COMPUTATIONAL FLUID DYNAMICS STUDY ON ALTERNATING DROPLET FORMATION, OIL-LIQUID REACTION MICROCHANNELS   *Mar. 2016 - Apr . 2018*

- Created numerical model for the formation of Alternating droplets in Microfluidic double T-channel using Volume of Fluid(VOF) method in **ANSYS Fluent**
- Simulated the mixing and Transesterification reaction patterns of Curcas Oil & Ethanol in Micromixer

Projects

Imposter Detection   *IIT Kharagpur*

UNDERGRADUATE PROJECT   *Aug. 2016 - Nov . 2016*

- Trained the system with the keyboard typing fata of two persons for a prescribed time span
- Selected features based on the holding time and latency time of the users
- Implemented a **Logisitic Regression** model to classify the testing data of the two users
- Achieved a prediction accuracy of **88.32%** for the final finetuned model

Education

Indian Institute of Technology, Kharagpur   *West Bengal, India*

DUAL DEGREE 5 YEAR IN CHEMICAL ENGINEERING & MINOR IN MATHEMATICS   *Jul. 2013 - Apr. 2018*

CGPA :8.05/10 **JEE Advanced Rank:**2947 out of 1.2 million applicants