KRISHNAPRAKASH K R

Engineer, Data science and analytics

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EXPERIENCE

Yield Engineer – Machine learning and risk analytics, GlobalFoundries Engineering Private Ltd, Bengaluru.   *March 2022 – June 2024*

Developed and implemented predictive model techniques for risk prediction, early yield degradation containment and root cause analysis (RCA) on large volume test data using machine model pipelines. Delivered data-driven insights and solutions for multiple cost-saving projects.

EDUCATION

Master of Science in **Physics**, University of Kerala, Thiruvananthapuram | CGPA**: 9/10**   2022

SKILLS

- **Data Cleaning, Manipulation and EDA:** Python - Pandas, NumPy, Matplotlib, seaborn.
- **Data dashboards and UI** Python streamlit, Flask and Power BI.
- **Machine learning:** Python: Data preprocessing, supervised and unsupervised algorithms, regression and classification models in ensemble method, pipeline automation, anomaly detection, feature engineering, model optimization and hyperparameter tuning.
- **Natural Language Processing (NLP***)* – nltk - vectorization and embedding techniques.
- **Deep learning**: TensorFlow-keras, Artificial Neural Networks - ANN, CNN image classification models and LSTM RNN for text training models.
- **Database, Version control and CI/CD Pipeline**: MySQL, GitHub, AWS EC2 and Code pipeline.
- **Advanced Mathematics and Statistics**: Calculus in Physics, numerical methods and Statistics.

ACHIEVEMENTS

- **Publication:** *Wave perturbations in Earth's thermosphere in conjunction with X1.7 solar flare: Observational perspective*, published in **Elsevier (Aug 15, 2023, University of Kerala and Indian Institute of Tropical Meteorology, Bhopal.** (Python EDA, Origin Pro and Matlab)

- Developed IYDC (Inline Yield Degradation Containment System) as part of cost saving project. The system trained with 3 years production data to detect anomalies and predict fails to cut processing cost and scrap fails before end of line.

PROJECTS (*https://www.krishnaprakash.in/works* or *GitHub*)

- Process step detection model provides local interpretability for root cause analysis
- IYDC pipeline for early risk prediction in large scale production environment.
- Credit card fraud detection streamlit web app. *(hobby)*
- Airline price prediction web app. *(hobby)*
- NLP project on Sentiment analysis. *(hobby)*
- Churn prediction script: streamlit web app model with ANN using churn modelling dataset. *(hobby)*