

# KRISHNAPRAKASH K R

## Engineer, Data science and analytics

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## Experience

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- **Yield Engineer - Data Science and Analytics, GlobalFoundries Engineering Private Ltd, Bengaluru.** *October 2022 – June 2024*

Implemented statistical and data analysis techniques for risk prediction and root cause analysis (RCA) on large volumes of test data using machine learning prediction and classification model pipelines. Delivered data-driven insights and solutions using regression models for multiple cost-saving projects.

- **Intern, GlobalFoundries Engineering private Ltd, Bengaluru.** *March 2022 – Sept 2022*

Utilized R and Python for correlation analysis and regression to identify failed wafers for disposition decisions

## Education

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

## Skills

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- **Data Cleaning, Manipulation and EDA:** R - dplyr, tidyr and Python - Pandas, NumPy, Matplotlib, seaborn, SciPy. Dashboards development using Python streamlit and Power BI.
- **Machine learning and Deep learning:** Python-scikit-learn: Data preprocessing, supervised and unsupervised algorithms, Regression and classification model training pipeline in ensemble method, feature engineering and scaling, hyperparameter tuning.
  - Natural Language Processing (NLP) – nltk - vectorization and embedding techniques for machine learning model training.
  - Deep learning: TensorFlow-keras for Artificial Neural Networks - ANN, CNN image classification models and LSTM RNN for text training models.
  - SQL (MySQL) for database management, Flask or streamlit for web app UI, Version control and CI/CD pipeline using GitHub, AWS EC2, Elastic beanstalk and Code pipeline.
- **Advanced Mathematics and Statistics:** Calculus in Physics, numerical methods and Statistics.
- **Development technologies:** ES6 JavaScript, HTML, CSS

## Achievements

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- **Paper Publication:** *Wave perturbations in Earth's thermosphere in conjunction with X1.7 solar flare: Observational perspective*, published in **Elsevier (Aug 15, 2023, Department of Physics, University of Kerala and Indian Institute of Tropical Meteorology, Bhopal 411 008, India.** This study evaluates satellite data to examine the effects of a solar flare on neutral winds and wave perturbations using MATLAB, Python (pandas, Matplotlib, NumPy) and Excel.  
<https://www.sciencedirect.com/science/article/abs/pii/S0273117723006750?via%3Dihub>

- Introduced and developed a method to capture early production line signals using triggered p-values from mass production data. Remarkable as a significant contribution to achieve goal of Early Fail Containment Project which reduced around 6% total cost in the overall production process.
- Achieved successful completion of multiple Device dataset classification requests for the purpose of implementing separate monitoring system for device sector.

## Projects

<https://www.krishnaprakash.in/works> or [GitHub](#)

- Airline price prediction web app: ML ensemble model pipeline with flask for frontend: Predicts airline price based on multiple input features.
- Spam Email Classifier: A Shiny web app developed in R-Studio using the k-Nearest Neighbours (k-NN) Algorithm to predict if an email is likely to be a spam or ham.
- NLP project on Sentiment analysis: Model trained using social media comments dataset from Kaggle to predict a comment is positive or negative.
- Startup funding distribution visualizer - Interactive dashboard web app supported by Python streamlit.
- Weather Prediction: A Python streamlit web app leveraging the Random Forest model.
- Churn prediction: streamlit web app model trained with ANN using Kaggle churn modelling dataset to predict customer churn.
- Websites: Department of Physics – University of Kerala, HTML/CSS/JavaScript/Bootstrap/Firebase.

## Courses and Certifications

- Crash course in Python, Certified by Google, Coursera
- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning, Coursera
- Prompt Engineering for ChatGPT, Vanderbilt University, Coursera
- Course in Cybersecurity Roles, Processes and Operating System security by IBM, Coursera
- AWS Cloud Practitioner Essentials, AWS
- Foundations of User Experience (UX) Design, Certified by Google, Coursera
- Fundamentals of Digital Marketing, certified by Google

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