

# KRISHNAPRAKASH K R

Yield Data Engineer

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## Permanent Address

Kottinattu House, Muttom PO, Haripad,  
Alappuzha, Kerala, IN. PIN 690 511

## Current residential Address

No 66, St Antony layout, Mariyannapalya,  
Bengaluru, Karnataka, IN. PIN 560 024

**D.O.B: 19 October 1997**

Experienced large volume production data engineer with academic background of Physics. Also, a self-taught Web developer. Interested to work on 'basic but complex' type of problems and exploring hidden patterns, probabilities and hypothesis test in large volume data with weight of scientific validation to drive impactful data-driven solutions. Wish to drive career in Advanced Data science and development domain.

## EXPERIENCE

- Yield Data Engineer, GlobalFoundries Engineering private ltd, Bengaluru.** Oct '22 – June '24  
*Experience in Systematic yield monitoring and root cause analysis using data analysis techniques from large volume semiconductor electrical test data using Machine Learning/Data mining tools. Develops data dashboards for monitoring large volume silicon production line data signals and enabling technicians to implement early containment actions. Implemented technically validated data-driven solutions in production line as part of multiple cost-saving projects.*
- Intern, GlobalFoundries Engineering private ltd, Bengaluru.** Mar '22 – Sept '22  
*Incorporating data analytics and semiconductor knowledge to apply in Industry level Semiconductor fabrication process. Helped team to change from manual signal capturing methods to automated dashboards.*
- Proprietor, care-PLUS, incubated by KUBHC Student Start up programme,**  
University of Kerala Dec '21 - June '22  
*Experience in co-ordinating and building a team for implementing a healthcare-based Android application. Successfully launched prototype model and completed initial social survey by leading a team of students.*

## EDUCATION

- Post Graduation as **Master of Science in Physics:** University of Kerala (UoK) | **GPA: 3.6** 2022
- Higher secondary education in **Science, Mathematics and Computer science** stream, Board of Higher Secondary Examinations, Kerala | **GPA: 3.7** 2016

## SKILLS & KNOWLEDGE

- Data cleaning, manipulation and analytics using programming in R, Python and MySQL.
  - (dplyr/ tidyr /data.table - R, Pandas, Matplotlib, NumPy – Python).
- Data visualization and interactive dashboards.
  - (ggplot2/ shiny web app/ shinydashboards – R, Plotly/ streamlit web apps – Python, PowerBI)
- Data report preparation, technical documentation and communication.
  - (MS PowerPoint/Excel tables).
- Proficiency in root cause analysis and obtaining data-driven solutions from large volume data using statistical methods of correlation and linear regressions.
- Machine learning prediction and classification algorithms in R libraries / Python scikit-learn.
  - (Regression, Random Forest, Naive Bayes, kNN, A/B testing, k-means clustering)

- Strong concepts and hands on skill in Advanced Mathematics (Calculus) and Statistics.
- Experience in Production yield dashboard monitoring using SPC (Statistical process control).
- Web development – HTML, CSS, Bootstrap, Programming languages - C++, ES6 – JavaScript with React.js front-end and Node.js Backend, AWS - Amplify hosting.
- Version control system using Git/Github.
- Experience in working with globally collaborated team working based on pass down shifts.

## ACHIEVEMENTS

- **Professional:**
  - Successfully implemented inline electrical signal dashboard to capture early production line signals using shift analysis method (signal capturing from triggered p-values) as part of ‘Early fail containment project’ which enabled technicians to identify and inhibition of faulty wafers in advance and cut cost of further process.
  - Achieved successful completion and segregation of multiple Device installation requests (based on regression analysis) part of Quality control and cost saving projects using SPC.
- **Academic:**
  - Founded and Proprietor of ‘care PLUS’ being selected in and incubated by KUBIIC 2021 Student Start up programme by University of Kerala.
  - Acquired qualification tier in IIT-JAM 2020, NMMS (National means – merit scholarship)

## PUBLICATIONS

1. **www.elsevier.com · Aug 15, 2023 | Wave perturbations in Earth’s thermosphere in conjunction with X1.7 solar flare: Observational perspective** | Department of Physics, University of Kerala, Thiruvananthapuram 695 581, India. Indian Institute of Tropical Meteorology, Bhopal 411 008, India  
<https://www.sciencedirect.com/science/article/abs/pii/S0273117723006750?via%3Dihub>

Using data analysis techniques and scientific approach, based on satellite observations data, the study examines the effect of an X1.7 flare (which occurred on January 27, 2012) on neutral winds and the formation of wave perturbations in Earth’s thermosphere. (MATLAB, Python pandas, Matplotlib, NumPy, Excel)

## PROJECTS (Freewill) /WORKS

- Spam E-mail classifier shiny web app tool, supported by R-Studio based on k-NN Algorithm -  
[https://krishnaprakash.shinyapps.io/email\\_classification/](https://krishnaprakash.shinyapps.io/email_classification/)
- Startup funding distribution visualizer - Interactive dashboard web app supported by Python streamlit.  
<https://startupfundingindia.streamlit.app/>
- Official Website, Department of Physics – University of Kerala | HTML/CSS/JavaScript/Bootstrap/Firebase.  
<https://department-of-physics-455cd.web.app/>
- Personal Portfolio Website – React – Next.js/Express.js/AWS Amplify/Git  
<https://www.krishnaprakash.in>
- Chimizhu magazine digitalization and documentation website – React.js/AWS Amplify/Git.  
<https://main.d3gkknoflyqpeg.amplifyapp.com>

**LANGUAGES:** English, Malayalam, Hindi.

## **Online Courses Completed**

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

**INTERESTS:** Data science, Physical Sciences, Computer science, Technology, Travelling, Trading.

**HOBBIES:** Web development, Building RC Planes and trucks / Arduino Robotics, Football, Plane spotting, Reading Popular science, Badminton.