Krishna N.
Data Engineer

SUMMARY

- About 6 years of experience in Data Engineering
- Upper-Intermediate English.
- Available ASAP.

SKILLS

Main Technical Skills	Machine Learning Algorithms (6 yr.), Python (6 yr.), NLP (6 yr.)
AI & Machine Learning	Deep Learning (5 yr.), Keras (4 yr.), NumPy, PyTorch (2 yr.), Scikit-learn, Spacy, TensorFlow
Programming Languages	Python (6 yr.), R (1 yr.)
Python Libraries and Tools	Beautiful Soup, Gensim, Keras (4 yr.), Matplotlib, NLTK, NumPy, Pandas, Plotly, PySpark (1 yr.), PyTorch (2 yr.), Scikit-learn, SciPy, Seaborn, TensorFlow
JavaScript Frameworks	D3.js
UI Frameworks, Libraries, and Browsers	D3.js
Python Frameworks	Flask
R Frameworks	Shiny
Databases & Management Systems / ORM	SQL (6 yr.)
Cloud Platforms, Services & Computing	Azure, GCP
Azure Cloud Services	Azure
Methodologies, Paradigms and Patterns	Agile, Scrum
Version Control	BitBucket, Git, SourceTree
Collaboration, Task & Issue Tracking	Jira

SDK / API and Integrations	RESTful API
Other Technical Skills	Data Analytics, Data Visualization Tools, Machine Learning Frameworks (6 yr.), Predictive Analytics, Signal processing (3 yr.), Statistical modeling, Statsmodels, Superset, Time series analysis

EXPERIENCE

Data Scientist III at Walmart Global Tech, Bangalore, India

07/2022 – today

Product: Walmart Luminate - B2B supplier support app used by multinationals like Nestlé, Procter & Gamble, Johnson & Johnson for sales data analytics.

- As part of the solution, build an anomaly alert ranking module to detect, prioritize and contextualize anomalies for Walmart products.
- Collaborate with the data engineering team to develop and implement best coding practices like code modularity and productionisation.

Technologies: Anomaly recommendation | Statistical modeling | Regression | Machine Learning | Time series analysis | Pyspark | SQL | Element | Git

Senior Data Scientist at Bosch Global Software Technologies, Bangalore, India

04/2020 – 06/2022
Project: ITAM - Intelligent Tyre Asset Management System for CEAT (leading tyre manufacturer) to check real-time tyre health and performance.

- In charge of the end-to-end project development life-cycle, leading the analytics team of four data scientists. Built predictive models using machine learning algorithms (XGBoost, Regression analysis), statistical modeling, and digital signal processing techniques to improve the predictability of tyre performance and reduce costs incurred in managing tyres.
- Oversaw engineering of the collected data to directly read from sensor logs to a model-ready format. Developed an app using Python, and regex to perform the data manipulation task that works well for various sensor versions. This has significantly saved hours of effort to perform manual data manipulation for field testers. Visualized signals, analyzed data, extracted features, built models, proactively suggested new use cases, and presented insights to CEAT that improved overall safety and downtime by tyre accidents. Received Bosch Agile Award for project excellence.

Technologies: Machine Learning | Signal Processing techniques (FFT, Autocorrelation, Wavelet transform, PSD, Filtering) | Statistical modeling | Pattern Recognition | Regex | XGBoost | Regression | Python | Lime | Scikit-Learn | Pandas
Product: Phantom Edge - an AIoT platform with real-time views of electrical energy consumption and machine-level information used by German industry clients like KERN-LIEBERS and Milltec.

- In charge of automating cycle time detection and signal pattern identification modules using ML, Statistical Modeling, and Signal Processing Techniques for the 2.0 version.
- Automated the cycle time capture from signals and measured accurate downtimes by providing timely, bias-free, and precise data that form the basis for managers to set targets, track performance, analyze, and improve continuously. The algorithm built was fully generalized to work well for all small and medium-scale machines without any manual intervention. Worked for 40+ clients and took part in their industry 4.0 digital transformation journey. Received Extra miler award for team contributions by Bosch.

Technologies: Machine Learning | Signal processing techniques (Fourier Transform, Wavelet scattering, Filtering, Smoothening) | Feature extraction | Statistical modeling | PCA | Pattern matching | Clustering analysis | Time series analysis | Correlation | Anomaly detection | Python | Scikit-Learn | Pandas | NumPy.

Data Analyst at EY Global Delivery Services India LLP, Trivandrum

04/2019 – 03/2020
Project: Management services bot - Responsive & AI-based chatbot for customer interaction with Guidewire (US insurance company) for customer queries (text/voice). Played a key role in development/integration/deployment. Trained Microsoft LUIS for intent classification with customer data and leveraged phonetic algorithms to overcome errors from misunderstanding of voice input. Built and integrated a D3.js-based visualization module for providing graphical responses for customer queries on coverage/plan. Integrated Azure speech-to-text and text-to-speech APIs with the application.
Technologies: Python | Flask | REST API | Microsoft SQL Server | Microsoft LUIS | AIML | Phonetic algorithms | Azure speech services | D3.js

Project: Policy bot - Responsive chatbot for user queries on insurance policies. Designed the bot, a pure Python-based search engine to match user queries with the policy PDFs and deployed the final solution in Azure.
Technologies: Python | Flask | Whoosh | Tika | MongoDB | Azure app services | Git.

Machine Learning Developer at TATA Consultancy Services Limited, Coimbatore

11/2016 – 04/2019
Project: Gilbarco Chatbot - AI engine developed for Gilbarco Veeder-Root (US fueling equipment supplier) to monitor the performance of fuel dispensers/meters across fuel stations in real-time. Developed a hybrid model from scratch that predicts working conditions, next week's flow rate, and the survival probability of the fuel dispensers (clog/normal) using machine learning algorithms and statistical analysis. Worked with 2 developers so they translated the model to the bot. Reduced downtime for

maintenance because of a data-driven decision to optimize maintenance planning.
Technologies: Python | Trend analysis | Binary classification | MLP | Survival analysis | Regression analysis | SQL.

Project: Auto-categorization of IT support tickets - Built ML algorithm for app service providers to manage/automatically resolve support tickets. Used a hybrid approach that uses both unsupervised clustering and supervised deep learning embedding to maximize the feature exploration and learning efficacy. Multiple optimized models are assembled to build a recommendation engine - reducing the time to resolve the tickets without multiple reopening/long triaging by 50%.
Technologies: Python | Topic modelling | NMF | LDA | NLP | Clustering | LSTM | Keras | Deep neural networks | Tf-idf.

EDUCATION

Bachelor of Technology in Electronics and Communications Engineering, N S S College of Engineering, Palakkad, India
08/2012 – 07/2016

CERTIFICATES

- Microsoft Certified: Azure AI Fundamentals
- Applied Data Science with Python

ACHIEVEMENTS

- Winner of Independence Day medical imaging hackathon (Bosch)
- Extra miler award for team contributions (Bosch)
- Bravo award for mentorship (Bosch)
- Agile award for project excellence (Bosch)
- Part of ”PHANTOM IoT Solu- tion” that won NASSCOM Innovation Award for “Engineered in India Product of the Year 2021” & finalist in ”Bosch India Innovation award 2020”

PATENTS

An apparatus and method to estimate cycle time for processing a workpiece in an industry - Application number: 202141034096, Jul 2021, filed together with Bosch, status pending with Indian Patent Office.

A system and method to monitor the operation of a machine in a manufacturing industry - Application number: 202141034093, Jul 2021, filed together with Bosch, status pending with Indian Patent Office.