Nitender Kumar

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CAREER OVERVIEW

Seasoned Data Engineer with over 12 years of experience building data processing pipelines for data science platforms handling high-volume, high-frequency sensor data. Experienced in both cloud and on-premise deployments, delivering end-to-end pipelines covering data ingestion, cleaning, transformation, feature engineering, modeling, and scoring. Skilled in leveraging parallel processing, big data, cloud computing, and advanced AI/ML techniques to transform raw data into actionable business intelligence in a cost-effective manner. Demonstrated ability to mentor and lead high-performing teams of data engineers, delivering innovative solutions with a strong focus on predictive analytics, automation, and intelligent insights.

Key Highlights

- Led end-to-end development of Deep View Analytics supporting automotive and marketing use cases.

- Designed ETL and streaming pipelines to ingest OBD II, Google Ads, and Salesforce data.

- Mentored engineers on best practices in big data, RESTful design, and DevOps automation, and

AI/ML implementation.

- Delivered carbon tracking analytics using ML and LLMs for sustainable transport insights,

including integration of generative AI for actionable recommendations.

TECHNICAL SKILLS

- ✓ **Python (OOPS and Scripting)**
- ✓ **Data Visualization (Python DASH and RShiny)**
- ✓ **Data Ingestion (RMQ, Kafka, Databases, APIs)**
- ✓ **Cloud Platforms (AWS)**
- ✓ **SQL (mySQL, PostGres) & NoSQL (MongoDB) Databases**
- ✓ **Continuous Deployment (Jenkins, Github)**
- ✓ **System Design**
- ✓ **GenAI [LangChain, LlamaIndex, HuggingFace, RAG pipelines, Fine-tuning locally deployed models, Prompt Engineering, Ollama]**
- ✓ **Data Manipulation (Pandas, NumPy)**
- ✓ **Machine Learning (TensorFlow, Keras, Pytorch)**
- ✓ **Big Data Technologies (Spark, Hadoop)**
- ✓ **RESTful APIs (Django, Flask, FastApi)**
- ✓ **Containerization Technologies (kubernetes, Docker)**
- ✓ **Creative Solution Development**
- ✓ **Performance Optimization**
- ✓ **LLM**

EDUCATIONAL QUALIFICATIONS

M. Tech (Data Science & Engineering), Birla Institute of Technology & Science, 2020-22
B. Tech (Electronics & communication), Graphic Era Institute of Technology (Dehradun), 2007-11

EMPLOYMENT HISTORY

Principal Data Engineer, Darby Technologies India Pvt Ltd & Danlaw Inc, Mar 2019 – Present

- Designed and developed a data science platform for the automotive sector based on the OBD II data received from the vehicles. The Platform adjusts dynamically to various vehicle types and vehicle groups for processing predefined for their respective business use cases.
- Implemented all software backend services and applications and deployed and maintained them as well.
- Designed and developed a scalable analytics platform for analyzing digital marketing platforms data like Google Ads, Google Analytics and Sales Force.

Project: Deep View Analytics platform

- Designed and built a versatile analytics platform entirely from scratch, capable of serving multiple business domains. The platform was developed using **Python, FastAPI, MongoDB, PostgreSQL, and RabbitMQ**, with all components containerized via **Docker & Kubernetes** for seamless horizontal scaling and high availability.
- Initially deployed in the **automotive sector**, the platform processed **OBD-II data** at both vehicle and fleet levels to deliver insights on **vehicle health, driver behavior, and road conditions**. Overcame challenges in **data domain standardization, resource management, and heterogeneous database integration**.
- The platform was later extended for the **digital marketing domain**, integrating with **Google Ads, Google Analytics, and Salesforce**, and successfully deployed for **Revlitix**, enabling advanced marketing campaign analytics.
- Additionally, the platform powers the **analytics engine for C6-Insights**, a sustainability-focused product that helps fleets and vehicle owners **track and reduce carbon emissions**. Integrated **AI/ML models** for predictive analytics, anomaly detection, and optimization, with **Generative AI (ChatGPT, Gemini, Claude, Mixtral, HuggingFace models, LangChain, LlamaIndex, RAG pipelines)** being explored to provide **interactive insights, sustainability recommendations, and phased fleet transformation strategies** for reducing carbon footprint.

Senior Software Engineer, NEC India Pvt Ltd, Aug 2012 - February 2019

- Designed and implemented data pipelines to collect and process SQL data from multiple sources.
- Developed and maintained databases to store and manage large volumes of data in Hadoop cluster.
- Developed automated data quality checks to ensure data integrity.
- Designed & developed core modules like data profiler, refactor engine wrapper which runs on spark and Hadoop cluster.
- Deployed these components as services.
- Helping other team members with spark and big data related issues.
- Created a DevOps environment and maintained it.

Project: QLM (queue length management)

- The project involved creating an AI-powered application to monitor live video feeds of queues. The system was designed to automatically count the number of people in a queue and send alerts to supervisors when the queue length exceeded a predetermined threshold, prompting them to open additional service counters. This Application was developed for MORE hypermarkets as a POC using TensorFlow and OpenCV with Django framework.

Project: Self Analytics

- The project was to develop an application over the analytical engine (refactor) developed by NEC-LABS USA. The application is a web-based application developed for in-house data scientists who can use this application to create features for creating machine learning models. This Application creates all possible valuable resources for a given dataset and gives the data scientist ability to choose from variety of features suitable for their problem statement instead of thinking of how to create suitable features.

Project: NEC IoT Big Data Solution

- This project was to use the MMS (Micro Modular Server) developed by NEC and deploy big data technology stack on it and implement the project on it. The project aims at providing big data resources to end users without exposing him to the underlying complexities of the system.

Project: PAOS (Predictive Auto Ordering System)

- This project involved building a recommendation engine using a proprietary machine learning tool to predict optimal inventory levels for various products based on sales data. By analyzing sales data, the system-built models for each product to determine the ideal inventory quantity, minimizing losses from both product shortages and overstocking. **SAMPO,** a framework

developed by NEC-LABS USA was used for building these models. Overcoming limitations of SAMPO (no parallelization) and optimizing application architecture for performance was challenging.

HOBBIES AND INTERESTS

Playing Chess

Acting

Touring on bike

KEY SKILLS AND STRENGTHS

Hard working

Leadership quality

Patient

Understanding

Quick Learner

DECLARATION

I hereby declare that all the information furnished above is true to my knowledge.

Place: Bangalore **NITENDER KUMAR**