

Dear Sir/Madam,

Greetings for the day!!

Please find my resume attached herewith for this position and other appropriate position/s in data science and machine learning in your esteemed company, for your reference.

Sir, I have completed Masters in Data Science from Northwestern University, USA with CGPA of 3.959/4 in March 2024. I request you to check some of my projects in my GitHub account at <https://github.com/Rajsh1111/>.

I also completed my one-year post-graduate certificate program in Artificial intelligence and Machine Learning from the Indian Institute of Technology, Guwahati in 2021. I also did bootcamp course in Data Science and Machine Learning from the Massachusetts Institute of Technology (IDSS)-USA (MIT-USA) in 2021.

I followed this with a one-year PG Certificate program in Data Science and Machine Learning from IIT, Roorkee to further enrich my knowledge and exposure in Data science. This program was completed in May 2022. It has further enhanced my know-how in this exciting field of data science which is becoming increasingly relevant in all sectors today.

Our team was runners up (got second position) in a hackathon on Machine Learning modelling conducted at IIT-Roorkee in April 2022. I have also completed a course on Neural Networks and Deep Learning from DeepLearning.AI.

Prior to this, I did my B.E. (Mechanical) from Jai Narain Vyas University, Jodhpur in 1996 followed by MBA(PGDIM) from Indian Institute of Management, Mumbai, India (erstwhile National Institute of Industrial Engineering) in 1998. NITIE has been ranked in top 10 business schools in India in 2022 by National Institutional Ranking Framework, Ministry of Education, Government of India. I have sound knowledge in operations research related topics like linear programming, mixed integer programming etc.

Sir, I request you to consider my resume for suitable positions related to Artificial Intelligence Data Science, and Machine Learning in your esteemed company. I am keen to join your organization due to its leading position in the industry, great organizational culture, the spirit of innovation, professionalism that characterizes your organization and its employees.

Looking forward to a positive response.

Thanking you,

Sincerely,

Rajeev Sharma

Enclosure: Resume

Rajeev Sharma

Proficient in using Machine Learning, Deep learning, Large Language Models, Natural Language Processing, Operations Research and Data Engineering to solve business issues.

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Core Competencies

Data Science/AI/Machine Learning/Large Language Models/NLP/Deep Learning/Statistics/Python/Operations Research/Data Engineering

Supply Chain Management

Vendor Development

Contracts

Risk Management

Project Management

Logistics Management

Quality Assurance

Imports & Customs Management








Team Management

Profile Summary










- A goal-oriented professional with more than **23** years of experience in Procurement and Supply Chain Management including Financial Analysis, Sourcing, Team Management with rich experience in using Machine Learning, Deep learning, Large Language Models, Natural Language Processing, Operations Research and Data Engineering to solve business issues.
- An effective communicator with strong analytical & organizational skills with a flexible attitude
- Avid learner with a strong belief in constant skill upgradation
- Completed Artificial Intelligence and Machine Learning course from IIT Guwahati in 2021 and IIT Roorkee in 2022 in Deep Learning Models and related frameworks like TensorFlow and Keras; computer vision and Natural Language Processing (NLP), Logistics Regression, Classification algorithms
- Experience with optimization techniques and tools for route planning, such as linear programming or genetic algorithms.
- Familiarity with spatial data analysis and geographic information systems (GIS).
- Knowledge of database querying languages (e.g., SQL) and working with structured and unstructured data.
- Proficiency in data visualization tools such as Tableau
- Large Language Models, Neural networks, mixture models, ARIMA, Bayesian models, K-Nearest Neighbors, Text Analytics and clustering algorithms
- Experience on Optimizer model development with Gurobi, knowledge of Apache Hive
- PySpark with MapReduce, designing supply chains with IBM CPLEX based anylogistix software
- Predictive analysis, Time series forecasting using ARIMA models and Holt Winters forecasting,
- Databricks, SQL and Hive queries for data engineering and big data analytics, Poisson models,

Education





- 🎓 Masters in Data Science from Northwestern University, Chicago, USA in 2024 with CGPA: 3.959/4
- 🎓 Post-graduate diploma in Industrial Management from NITIE (National Institute of Industrial Engineering, Vihar Lake, Mumbai, India) with 7.78/10 CGPA in 1998. NITIE has been ranked in top 10 business schools in India in 2022 by National Institutional Ranking Framework, Ministry of Education, Government of India. Reference for ranking: <https://www.nirfindia.org/2022/ManagementRanking.html>
- 🎓 BE (Mechanical Engineering) from M.B.M. Engineering College, JNV University, Jodhpur, Rajasthan, India with 67.5% in 1996

-  Post Graduate Certificate course (one year) in Artificial Intelligence and Machine Learning from IIT Guwahati in 2021
-  PG Certificate Program (one year) in Data Science and Machine Learning from IIT, Roorkee with elective and capstone project pertaining to Data Engineering involving Hadoop, Hive, MySQL, Databricks, Azure, AWS and MLOPs in 2022
-  Data Science and Machine Learning: Making Data-Driven Decisions course from Massachusetts Institute of Technology, USA in 2021
-  Neural Networks and Deep Learning from DeepLearning.AI in Feb 2023. Course is taught online by Andrew NG on Coursera platform.
-  AWS Solutions Associate Architect Training course from Edureka comprising AWS Sage maker, S3 buckets use cases in 2022
-  Advanced Big Data Analytics using Hive and Sqoop from Tutorials Point in 2022
-  Certification from Tableau authorized institute in Advanced understanding of Tableau Desktop and application of Visual Best Practice Methodologies valid for 3 years till Dec 20, 2024

LinkedIn Learning Certificates:

-  Certificate Of Completion-SQL Essential Training
-  Certificate Of Completion- Data Science Foundations Data Mining in Python
-  Certificate Of Completion-Introduction to Spark SQL and DataFrames
-  Certificate Of Completion -Data Engineering Foundations
-  Certificate Of Completion-Deep Learning Model Optimization and Tuning
-  Certificate Of Completion-Essentials of MLOps with Azure Spark MLflow Models and Model Registry
-  Certificate Of Completion-Transformers Text Classification for NLP Using BERT
-  Certificate Of Completion-Excel Supply Chain Analysis Solving Inventory Problems
-  Certificate Of Completion-Excel Supply Chain Analysis Solving Transportation Problems

Other Certifications:

-  Completed Management Development Program from NITIE, Mumbai on “Application of Artificial Intelligence / Machine Learning in operations & supply chain management during the period Jan 22nd-Jan 29th 2022
-  Global Online Certification Course on ‘Supply Chain Operations & Disruptions Management by Prof. Tadeusz Sawik (AGH University, Poland & Reykjavik University, Iceland) in 2021, a certificate issued by NITIE, Mumbai
-  Global Online Certification on Supply Chain Digitization and Management by Prof. David Simchi-Levi (MIT, USA) & Prof. Manoj K. Tiwari (Director, NITIE) in 2021, a certificate issued by NITIE, Mumbai.
-  Global Online Certification on Modelling and Building Digital Supply Chain Twins using anyLogistix by Prof. Dr. Dmitry Ivanov (Berlin School of Economics and Law, Germany) & Prof. Manoj K. Tiwari (Director, NITIE) in 2022, a certificate issued by NITIE, Mumbai



IT Skills

Apt in:

Python and R for Data Science, Artificial Intelligence and Machine Learning algorithms -classification, regression, natural language processing, principal component analysis, discriminant analysis, support vector machine, decision tree / forest ensembles, using algorithm libraries / frameworks like H2O, Keras and TensorFlow









Neural networks, mixture models, ARIMA, Bayesian models, K-Nearest Neighbours, Text Analytics and clustering algorithms Experience on Optimizer model development with Gurobi, knowledge of Apache Hive,

PySpark with MapReduce, designing supply chains with IBM CPLEX based anylogistix software, Predictive analysis, Time series forecasting using ARIMA models and Holt Winters forecasting, Using Databricks, SQL and Hive queries for data engineering and big data analytics, Poisson models, Survival models, Hierarchical models, Naive-Bayesian estimators, Industry 4.0 strategy and implementation, MLOps, Machine Learning models deployment using Flask API, HuggingFace Transformers, LLMs










RDBMS: MySQL, Postgres SQL
Data Base: Elasticsearch, Neo4j
ERP System: SAP-Materials Management, BaaN, Maximo,
MS Office: Microsoft Office-Word, Advanced Excel, PowerPoint
e-Sourcing: SAP-Ariba
Data visualisation: Tableau, Microsoft Power BI
Cloud computing: Azure, AWS, Google Colab

Data Science Projects handled till date:

PySpark projects handled till date:

-  Building classification and clustering models with PySpark and Mlib
-  Building regression models with PySpark and Mlib
-  PySpark project- building data pipeline using Kafka and Redshift
-  PySpark project- building data pipeline using Hive and Cassandra
-  PySpark ETL project for real time data processing
-  Using PySpark and Hive along with Python and SQL to analyse New York Taxi trips database
-  Building a data pipeline in AWS using Spark and ELK stack
-  Building a real time spark streaming pipeline on AWS using Scala

Large Language Models, Transformers and Natural Language Processing:

-  Building systems like customer service chatbot using Prompt Engineering and ChatGPT API and evaluating their performance by devising prompt/s for the same. This project encompasses splitting complex tasks into a pipeline of subtasks using multistage prompts; making chains of prompts that interact with completions of prior prompts; making Systems where Python code interacts with both completions and new prompts; classifying user queries to a chat agent's response, evaluating user queries for safety, and processing tasks for chain-of-thought, multi-step reasoning; evaluating LLM inputs and outputs for safety, accuracy, and relevance
-  Fine Tuning LLMs for Code/Query Generation or Text Summarisation
-  Building a Question-Answering System Using OpenAI LLMs on 'Private Text'
-  Zero and Few-Shot Classification with Transformers, LLMs and stormtrooper
-  Named Entity Recognition with OpenAI LLMs — Extracting Conversation Metadata
-  Building a knowledge-grounded chatbot using LLMs
-  Building a chatbot to answer employee queries pertaining to Human Resources Department
-  Training Large Language Models by using Gradient Automation, Gradient checkpointing, Automated mixed precision
-  Fine tuning Llama-2-7b per customer and serving through Lorax

- 📄 Evaluating performance of Large Language Models by using Ragas
- 📄 Training GPT2 model
- 📄 Using a pre-trained transformer model and tokenizer from HuggingFace library to classify text
- 📄 Named Entity Recognition (NER) by directly using the BERT-base-NER model in Hugging Face
- 📄 Fine-tuning the pre-trained Google-T5-small model in Hugging Face for text summarization
- 📄 Making question answering model by using a pre-trained model in Hugging Face
- 📄 Fine-tuning the pre-trained BERT model on SQuAD dataset in Hugging Face for question answering model
- 📄 Abstractive text summarisation using Google-T5-small model
- 📄 Abstractive text summarisation using Pegasus and BART
- 📄 Text classification and Named Entity Recognition extraction using Transformers like BERT and transformers from HuggingFace library
- 📄 Text classification using Word Embeddings & Neural Networks
- 📄 Predicting the probability that an online transaction is fraudulent using machine learning on a challenging large-scale dataset
- 📄 Sentiment Analysis and classification of Tweets using Random Forest Classifier
- 📄 Deep Convolutional Neural Network for Sentiment Analysis (Text Classification)
- 📄 Building sentiment analyser by making use of RNN (Recurring neural network)
- 📄 Finding Commercial Vehicle Expected time of arrival considering Route Constraints
- 📄 Route Optimization Based on Trip Factors
- 📄 Fuel Station Recommendation for Optimal Refuelling
- 📄 Text classification with an RNN (Recurring neural network)

📄 [Projects pertaining to Supply Chain and customer orders:](#)

- 📄 Development of digital transformation strategies and devising enterprise architectures for manufacturing and supply chain domain, health-care, retail and fintech industries by making use of Azure based cloud architecture
- 📄 SAP-Material Management and SAP-Ariba implementation
- 📄 Selection of primary and recovery supply and demand portfolios and production scheduling under disruptions
- 📄 Make resilient multi-tier supply portfolio under disruption risks to minimize cost and service at risk
- 📄 Selection of fair supply portfolio to equitably.
- 📄 Selection of supply portfolio under disruption risks
- 📄 Selection of primary and recovery supply portfolios
- 📄 Selection of supply portfolio under disruption risks

- 📄 Scheduling of customer orders to maximize service level
- 📄 Scheduling customer orders to minimize maximum earliness
- 📄 Scheduling customer orders to maximize service level and balance production
- 📄 Customer order selection to maximize service level
- 📄 Scheduling of single- and multi-period customer orders to maximize service level

Supplier segmentation:

- 📄 The objective of this project was to build a system to recommend supplier segmentation based on the ratings given in the suppliers' scorecard.
- 📄 We have more than 200 suppliers which are scored on five parameters: Quality, Delivery, Safety, Services, and Pricing. We score these suppliers on these parameters with max. the score being 5. Now we need to cluster these suppliers on basis of these scores.
- 📄 We get three well-separated clusters by using python code for hierarchical clustering technique
- 📄 This helps in deciding a strategy for these suppliers as per the category they belong to.

Supplier score prediction:

The objective was to predict the overall score of suppliers based on scores on five parameters: Quality, Delivery, Safety, Services, and Pricing based on Linear regression model fitted by using scikit-learn library in Python.

Supply Chain Optimization by using Python along with Gurobi, Cplex, Google OR tools:

Finding the optimal locations of manufacturing facilities and distribution centers to meet customers' demand and reduce production costs and shipping costs and to redefine the Supply Chain Network for the next 5 years considering the recent increase in shipping costs and the forecasts of future demand by using Gurobi, Cplex and Google OR tools

📄 Optimising warehouse space

📄 Projects pertaining to Marketing Analytics:

- 📄 Clustering customer reviews by using word embeddings, K-means, Latent Dirichlet Allocation and Latent Semantic Analysis
- 📄 Creating customer segments based on manipulated data
- 📄 Predicting customer lifetime value using linear regression
- 📄 Using classification algorithms to understand customer choice
- 📄 Optimizing classification algorithms to extract maximal customer information

📄 Projects pertaining to Data Engineering and Machine Learning:

📄 NewYorkCity_taxi_case_study:

In this case, study, a predictive model was built to predict the duration of a taxi ride. This provided practical experience in installing dependencies, loading the data as a Pandas data frame, defining the outcome variable - the variable we are trying to predict and build features with Deep Feature Synthesis using the [featuretools](https://featuretools.com) package. We started with simple features and incrementally improved the feature definitions and examined the accuracy of the system.

 Skills and Tools used:

 Pandas, Featuretools, Deep feature synthesis, Python

 Used PySpark and Hive to do detailed analysis of the taxi trips for formulating reports in desired formats along with new perimeter calculations by adding new columns in PySpark SQL Dataframe


Movie Recommendation:

 The objective of this project was to build a recommendation system to recommend movies to users based on the ratings given to different movies by the users.

 Skills and Tools used:

 Collaborative Filtering, Matrix Factorization, Recommendation Systems


Data Analysis of the Pima Indians' Tribe who were tested for Diabetes:

 The project objective was to explore how the different diagnostic values change & behave individually and with each other in the women of the Pima Indians tribe who were tested for diabetes.

 Skills and Tools used:


Visualization & Data Interpretation using Python, Descriptive Statistics, Exploratory Data Analysis

Products Recommendation:

 The objective of this project was to build a recommendation system to recommend products to users based on the ratings given to different products by the users.

 Skills and Tools used: Collaborative Filtering, Matrix Factorization, Recommendation Systems

 We got the predictions for each model: Normal Predictor, Collaborative models (User-based & Item-based) as given by KNN Basic and Matrix Factorization Model.

 Recommender systems are used by E-commerce portals to recommend products to their customers. The products can be recommended based on the top overall sellers on a site, based on the demographics of the customer, or based on an analysis of the past buying behavior of the customer as a prediction for future buying behavior.

Insurance costs prediction:

Built a Linear regression model for medical cost dataset. The dataset consists of age, sex, BMI (body mass index), children, smoker and region feature, which are independent and charge as a dependent feature. Using this model, we predicted individual medical costs billed by health insurance.

Sentiment analysis of product reviews:

The objective was to predict overall sentiment analysis of product reviews on Amazon by using Text Analytics.

I made use of Natural Language Processing techniques and Vader sentiment analysis for accomplishing the same.

Mall Coupon selection – for increasing the customers in the mall:

The objective was to come up with a model which would be able to predict whether a customer will accept the recommended coupon issued from the mall to increase the footfalls in the restaurants and overall customers for the mall. My team was runners up (second position) in hackathon on Machine Learning modelling conducted at IIT-











Roorkee in April 2022 on this project pertaining to Mall Coupon selection.




Work Experience

Sept'18 - Aug'21 Atotech India Private Limited as Head - Procurement

-  Groomed the Procurement team in understanding the use of data analytic tools to gain better insights into Indirect categories & Raw Materials by leveraging supplier and industry analysis
-  Implemented market intelligence and data analytics processes that support sourcing processes and building category strategies
-  Represented Procurement and Supply chain in Sales & Operations planning meetings for alignment with Sales and Production teams, Leadership team meetings, and Regional Management meetings
-  Contributed to enhancing the use of spend data, contract data, and other data sources to drive better insights for sourcing and procurement
-  Steered the team to assist the sourcing and procurement technologies like spend analysis and metrics for sourcing team (SAP Business Intelligence), SAP master data, tools for e-Sourcing and Contract lifecycle management, document management tools (SharePoint), and other relevant technologies for a sourcing and procurement function like SAP-Ariba
-  Directed Capex & MRO Procurement for categories like rotary equipment, pumps, engineered electrical equipment, instrumentation items, process control equipment, lab equipment, machinery, material handling equipment, pipes, valves, power & control cables, engineering services
-  Implemented Best Cost Country Sourcing by developing local suppliers for supplies at the global level
-  Led optimization of payment terms of present suppliers for increasing days payment outstanding by 15-20 days
-  Achieved yearly target of cost reduction of 10% year on year
-  Negotiated annual contracts for inbound and outbound logistics, annual contracts with CHAs, Freight forwarders, contracts about warehouse and for external warehouses taken on lease
-  Analyzed non-moving and slow-moving raw materials along with production planning and warehouse for disposal of the same
-  Successfully implemented SOX Audit (Sarbanes-Oxley Act) related guidelines in Procurement and Supply chain
-  Implemented supply chain management strategies that increase efficiency and speed
-  Compliance with local laws, regulations and ISO requirements
-  Responsible for import of raw materials and export of finished goods and monitoring quality, quantity, stock levels, delivery times, transport costs and efficiency

Apr'14-Aug'18 BASF INDIA Ltd., Mumbai as Senior Manager (Category Team Lead)-Capex & MRO Procurement

-  Established high-performance team of buyers for managing Project & MRO procurement and Project Procurement Manager for large capex projects at Navi Mumbai, Dahej & Ankleshwar
-  Steered Project Procurement worth:
 - Rs. 200 crores for Innovation Campus at Navi Mumbai by managing major packages like Civil, Electrical, Interior Works, HVAC, Gas Distribution System, Laboratory equipment, Fire Fighting Systems, Integrated Building Management System
 - Rs. 100 crores Dahej Follow-up Project at BASF Dahej site, Gujarat in the civil, fabrication of structures, electrical, dyke waterproofing packages
 - Rs. 70 crores for Paper Chemicals division of BASF Ankleshwar site by managing packages like civil, electrical, air compressors, fabrication of structures, conveyor belts, capital equipment
-  Successfully implemented Shared Service Centre for tail-end spend by formulating buying guides for ensuring knowledge transfer to Shared Service Centre buyers for Indirect categories
-  Represented procurement in GST implementation in collaboration with Ernst & Young Team by presentations on conceptual change in taxation that were expected
-  Benchmarking of raw materials with indices for price optimization
-  Successfully implemented SAP-ARIBA in procurement for further streamlining and automation of processes
-  Negotiated contracts with EPC vendors for greenfield and brownfield projects
-  Directed procurement of Professional Services, Facility Management Services, Security Contracts, Transportation Services, Packaging Contracts, Warehouse contracts
-  Engaged in the procurement of Marketing, Consultancy Firms, Legal Firms, Recruitment, Contract Manpower, Training & Development, Insurance, Travel, Office Services & Suppliers in India
-  Supervised negotiation of annual maintenance contracts: Civil, Electrical, Mechanical, Scaffolding, Painting, Insulation for BASF sites

-  Streamlined procurement of MRO items for 10 operational plants & optimized inventories of spares at sites
-  Accomplished cost reduction of 10 % over year-on-year procurement expense
-  Introduced concept of performance-based contracts for key OEMs and sourcing of services such as Civil, Mechanical, Electrical & Instrumentation contracts

Previous work experience details:

Jun'12 – Mar'14 ADANI Power Ltd., Ahmedabad as Dy. Gen. Manager- Procurement

Nov'10 – May'12 Reliance Power Ltd., Shahjahanpur as Sr. Manager- Procurement

Oct'09 – Nov'10 HINDUSTAN ZINC Ltd., Udaipur (A Vedanta Group Company) as Manager- Procurement

Aug'05 – Oct'09 LARSEN & TOUBRO Ltd., Mumbai as Manager-Procurement

Jul'01 – Aug'05 GUJARAT GUARDIAN Ltd., Ankleshwar as Executive – Sourcing

Jun'98 – Jul'01 EICHER MOTORS Ltd., Pithampur as Assistant Manager

Pls. note: If required, I can share more details on work experience as per your requirement

Personal Details

Date of Birth: 25th October 1972

Present Address: Flat B-1302, Elite Enclave CHS Ltd., Plot 260, Sector 10, Kharghar, Navi Mumbai, India

Expected CTC: Negotiable

Status: Married

Mobility: Yes