



Balvendra Singh
Data Scientist

+91-9509428603
balvendarsingh111@gmail.com
GitHub LinkedIn

PROFILE SUMMARY

I am a skilled Data Scientist with 2 years of experience in designing and deploying data-driven solutions that drive business impact. My expertise includes data modeling, machine learning, deep learning, and Generative AI. With hands-on experience in big data technologies and cloud platforms, I excel at building scalable solutions. Passionate about continuous learning, I leverage emerging technologies to align with business goals and industry advancements.

WORK EXPERIENCE

Data Scientist, Grid Dynamics *Hyderabad, INDIA | 01/2023 - Present*

- Developed AI-powered Financial Assistant using GPT-4 Vision for document analysis
- Engineer data pipelines from raw financial documents to Vector Databases
- Created multi-cloud cost optimization tool for AWS, Azure, and GCP
- Implemented real-time cloud infrastructure monitoring system
- Designed NLP-based user interaction system for improved engagement
- Developed SQL Validator with RBAC for enhanced data security
- Integrated few-shot learning techniques for AI decision-making
- Built analytics tools for performance and user activity monitoring
- Utilized Vector Databases for optimized schema storage and retrieval

KEY SKILLS AND SOFT SKILLS

Technical Skills: Python | SQL | Pandas | NumPy | Scikit-learn | TensorFlow | Matplotlib | AWS | Git

Machine Learning: Supervised/Unsupervised Learning | Deep Learning | NLP | Feature Engineering | Algorithms

Frameworks: RAG | Vector Store Graph Database: Azure CosmosDB, Neo4j | Vector Store Text: ChromaDB, Pinecone

Data Analysis: Statistical Analysis | A/B Testing | Time Series Analysis | Data Visualization

PROJECTS

Power LLM_BI

- Designed and implemented a comprehensive architecture integrating user interface, decision-making agents, and database management systems
- Developed and optimized a Vector Database for efficient storage and retrieval of schema collections, enhancing search operations
- Integrated LLM-Guard technology to manage user interactions and ensure robust system security
- Engineer an SQL Validator to enforce Role-Based Access Control (RBAC) and validate SQL queries, improving data integrity and access control
- Implemented few-shot learning techniques, using vector representations to improve decision-making abilities.
- Engineer NLP capabilities to enable intuitive user interaction through natural language responses

Cloud Optimizer (AWS, Azure, GCP)

- Developed multi-cloud software toolkit for infrastructure analysis, cost optimization, and inventory management
- Engineer real-time monitoring system for cloud performance and usage metrics on AWS
- Implemented data management and inventory tracking services to optimize cloud resource utilization
- Created cost reduction algorithms identifying savings opportunities across cloud platforms
- Designed and maintained scalable architecture to support evolving cloud technologies

Financial Documentation

- Architected and implemented an AI-powered Financial Assistant system for processing and analyzing financial PDF documents

- Integrated GPT-4 Vision for advanced text and table extraction from complex financial reports
- Designed and optimized data pipeline from raw document intake to structured information storage in Vector Database (CromaDB)
- Developed scalable document processing workflows for efficient financial data analysis
- Implemented retrieval-augmented conversational model using Large Language Models for interactive financial document queries

Activity-Based Dosing Optimization

- Designed and implemented a machine learning model to predict HLAS activity with high accuracy using FTIR data.
- Automated dosing adjustments in production systems, enabling real-time optimization of operations.
- Achieved activity prediction accuracy with less than 5
- Ensured strict adherence to product activity specifications.
- Delivered significant cost savings and improved resource efficiency in production.

CERTIFICATES

- **AWS (Amazon Web Services) Certified Training and Certification** [View Certificate](#)
- **AWS Certified Developer - Associate** [View Certificate](#)

EDUCATION

• Motilal Nehru National Institute of Technology Allahabad (NIT-Allahabad)	2019-2023
<i>B.tech in Electronics and Communication Engineering</i>	CPI: 7.77