

# Ashutosh Dwivedi


Masters in Business Analytics 2021-'23

IISc Bangalore 

Department of Management Studies

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## EDUCATION

YEAR	DEGREE	INSTITUTE	GPA/Percentage
2023	M.Mgt (Business Analytics)	Indian Institute of Science, Bangalore	8.60/10
2021	B.Tech(Agricultural)	College of Agricultural Engineering, JNKVV Jabalpur	8.49/10
2017	12th	Christ Church School ISC, Jabalpur	88.60
2015	10th	Christ Church School ISC, Jabalpur	87.60

## WORK EXPERIENCE

Data Science Consultant (Asst. Manager) - Deloitte

July '23 - till date

- **Technical Lead — Machine Learning & GenAI Engineer**

- Led the development and deployment of advanced **GenAI-driven solutions** for **EHS use cases**, leveraging **GPT OpenAI**, **LLMs**, **reranking mechanisms**, and **Bedrock services**.

- **Use Case 1:** Engineered an **LLM-powered system** to classify incident types and dynamically pre-fill incident details with accurate descriptions.

- **Use Case 2:** Designed a **RAG-based chatbot** to provide real-time, context-aware responses, helping users access historical incidents and relevant policies.

- Built and optimized automation pipelines using AWS services like **Step Functions**, **API Gateway**, **Lambda**, and integrated solutions with **IaC** scripts.

- Oversaw **bulk data processing and seamless knowledge base updates**, ensuring continuous optimization of GenAI models.

- **Technical Lead — GenAI: Retrieval Augmented Generation - Tyre R&D**

- **Led** a team responsible for developing an advanced **RAG** tool capable of **processing** a corpus of documents, and **returning answers** to user **queries** for a major client in tire physics and research domain.

- Used multiple advance and recommended techniques like **semantic chunking**, **recursive chunking**, **HYDE**, **LLM as a Judge**, etc for tool development and evaluation.

- Worked with **Anthropic** and **Titan** models to build the solution. Implemented and developed the tool on a **serverless** platform of AWS thereby **reducing running and development costs**.

- **GenAI: Report Analyzer Accuracy Enhancement**

- Developed a custom **web scraper** to efficiently download multi-year reports from various firms for subsequent analysis.

- Enhanced the accuracy of an existing text analysis tool, built by a partner firm, by leveraging **Generative AI (GenAI)** models and **Natural Language Processing (NLP)** techniques, such as **Named Entity Recognition (NER)**.

- Integrated **OpenAI's** models to process the tool's output, ensuring compatibility with tools and workflows.

## INTERNSHIP EXPERIENCE

Data Scientist - Dunzo Digital Pvt. Ltd.

Jan '23 - June '23

- **Inventory Management and Demand Forecasting**

- Utilised **Neural Network Architecture-based embeddings** for categorical variables, and **Time Series** methods to forecast the demand of stock keeping units in a Dunzo store to minimize wastage and inventory costs.

AI/ML Engineer - Ansys

May '22 - July '22

## ADDITIONAL PROJECTS

Predicting Prices of Second Hand Cars in India

- Developed a **Linear Regression** model to estimate final price of the cars based on the specifications. **Data preprocessing and EDA** was done. All the **Assumptions of Linear Regression** were verified.

- **Evaluated** Linear Regression model using **RMSE** and **R-squared**. Detected and treated **multicollinearity** using **VIF**, eliminated features using **backward selection**. Compared the results of the model prediction with more complex regression models like **Random Forest Regressor**.

## SKILLS AND TECHNICAL EXPERTISE

- **Languages:** Python, R, SQL

- **MLOPs:** AWS, Azure, FastAPI, Flask, IaC (Infra. as Code), CI/CD, Project Pipeline

- **Skills:** EDA, Deep Learning, Statistics, Machine Learning, Artificial Intelligence, Prompt Engineering, Streamlit

- **Tools:** Anaconda, R-Studio, VSCode, Google Analytics, LookerStudio, Langchain, LlamaIndex

- **Engineering & Management:** **GATE AIR - 2** (GATE-2021), IISc M.Mgt ,23 - **Distinction**, **University of Cambridge** - Sustainability and IP Rights Certificate (Student Exchange - 2023)