

# Jordan DSouza

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## EDUCATION

### E and ICT Academy, IIT Kanpur

Post Graduate Diploma in Data Science

Remote

September 2023 – July 2024

### St. Francis Institute of Technology

BE Electronics and Telecommunication Engineering 8.85 GPA

Mumbai

July 2019 – May 2023

## WORK HISTORY

### Slash Mark Internships

#### Machine Learning Engineer Intern

Remote

November 2023 – February 2024

- Built ML models to extract insights from datasets, achieving an  $R^2$  score of 0.6689
- Performed hypothesis testing and feature engineering to improve variable representation
- Conducted statistical analysis to support conclusions and drive model decisions
- Communicated findings with data visualizations (charts and summary tables)

### Code Clause HR

#### Data Science Intern

Remote

August 2023 – September 2023

- Created a logistic regression model that achieved 91% classification accuracy
- Conducted data cleaning, outlier handling, and validation to improve reliability
- Applied core machine learning algorithms in a business-oriented context
- Documented model assumptions and tested against real world inputs

## PROJECTS

### Brain Cancer Detection

- Built a deep learning model using **TensorFlow** to classify grayscale scans for brain cancer detection
- Applied **OpenCV** for image preprocessing and implemented early stopping
- Fine-tuned MobileNetV2 architecture, achieving 82% test accuracy
- Visualized model learning using training plots and pixel distributions for interpretability

### Hospital Cost Predictor

- Designed an end-to-end machine learning pipeline to predict healthcare costs
- Conducted data cleaning, visualization and dashboarding using **Power BI**
- Built an **XGBoost** model achieving a test accuracy of 89.17%
- Applied real world cases to test the model

### Intelligent Q&A System for Research Papers with Gemini 2.0 Flash

- Designed a **RAG** system using **Google Gemini API** to process and query long-context academic papers
- Implemented data parsing, indexing, and retrieval pipelines with **Python** and **LangChain**
- Integrated **LLM-based summarization** and contextual answering for research insights
- Optimized performance for large datasets with focus on scalability and response accuracy

### Linguistic Feature Extraction and Text Analysis Pipeline

- Built a Python-based **NLP pipeline** to extract readability and sentiment metrics from 100+ news articles
- Used **Beautiful Soup** for web scraping and applied **NLTK** and regex for polarity, subjectivity, and Fog Index calculation
- Extracted linguistic features (pronouns, sentence length, syllables) via rule-based logic and dictionary lookups
- Consolidated results into structured **Pandas** data frames for reporting and further analysis

## SKILLS

**Technical Skills:** Python, SQL, Excel, Power BI, Tableau

**Libraries and Frameworks:** TensorFlow, Keras, Scikit-Learn, Pandas, NumPy, PyTorch, OpenCV, NLTK

**Machine Learning:** Computer Vision, Natural Language Processing, Deep Learning, LLM, RAG

**Other Skills:** Data Cleaning, Feature Engineering, Data Visualization, and Database Management

## CERTIFICATIONS

**Machine Learning in Excel** – 365 Data Science

November 2024

**The Data Science Course: Complete Data Science Bootcamp** – Udemy

August 2023

**Neural Networks and Deep Learning** – Coursera

September 2021