ARYA CHAKRABORTY

CAREER SUMMARY

Led multiple teams in diverse data science projects, ensuring seamless coordination with clients and partners for successful database automation.

EDUCATION

Vellore Institute of Technology

MSc Data Science

CGPA: 8.81

• Subjects: Python, Data structures, Machine learning, deep learning, Information retrieval techniques.

June 2022

Expected: April 2024

Kalyani Mahavidyalaya BSc. Statistics

CGPA: 8.26

Subjects: Hypothesis testing, Probability theory, Time series analysis, Regression analysis.

EXPERIENCE

Al Developer January 2024 - Present Isnartech PVT. Ltd Remote

I fine-tuned Gemma 2B & DeepSeek Coder 1.3B models on 3000 rows of structured data, achieving SACRE BLEU scores of 70.38 and 70.35 respectively, for converting natural language to SQL queries.

• Developed a Flask app for real-time air quality index prediction, integrating advanced ML models (Linear Regressor, Random Forest Regressor, Artificial Neural Network), each achieving over 85% accuracy, by fetching live air pollutants data.

Data Science Intern

August 2023 – September 2023

Remote

• I analyzed diabetes prediction using 9 ML methods, proposing a superior deep learning model and introduced a personalized health tracking web app, outperforming existing models by 10%.

Proposed model outperformed existing models by attaining a 10% higher accuracy in diabetes prediction.

SKILLS

- Statistical analysis, Time Series analysis, Probability.
- Python, R, SQL, Power Bi, Excel.
- Transformers, Streamlit.
- Version control systems, GitHub, AWS Sagemaker.
- Natural Language Processing (NLP), Computer Vision, Large Language Models, Generative AI (Gen AI).
- Machine Learning, Deep Learning, Artificial Neural Network, Recurrent Neural Network, Convolutional Neural Network.

UNIVERSITY PROJECTS

NLP-Powered Automatic Document Summarization: A Fine-Tuned Approach

November 2023

- Created an Automatic Document Summarization Model using NLP techniques, secured a remarkable 10.71% improvement in accuracy (ROUGE score of 0.31) over pre-trained models.
- Implemented user-friendly features, allowing customization of summary lengths, model selection, and support for over 150 languages, ensuring a diverse and efficient user experience.
- Integrated 4 state of the art LLM models, including a fine-tuned BART model (Facebook/bart-large-cnn), keyword generation using KeyBERT, language translation with Hugging Face Transformers, and LoRA-PEFT for long text summaries.
- 2. Gender Classification using CNN & OpenCV

July 2023 – September 2023

- Constructed gender classification system securing 89% accuracy using custom CNN models on 17,000+ images.
- Enforced transfer learning and fine-tuning techniques, achieving a 90% test accuracy on selected model.
- Designed and trained 5 models for gender classification, including 3 CNNs built from scratch and 2 utilizing transfer learning.
- 3. <u>Career Buddy Career Guidance AI Chatbot</u>

February 2023 - July 2023

- Web scrapped the dataset from Quora using Beautiful Soup which was more than 5 GB of size.
- Used Convolutional Neural Network based deep learning model which gave 30% better accuracy then other existing ones.
- Orchestrated end-to-end pipeline, deploying innovative resource with precision, showcasing AI expertise and user-friendly design.
- 4. Web Application for Stock Price Analysis & Prediction

October 2022 - January 2023

- Engineered an LSTM Neural Network model for accurate stock price forecasting which was tested on more than 10 datasets and got better accuracy then the existing models.
- Conducted over 6 comprehensive statistical and technical analyses to gain insights into the company's performance.
- Transformed complex market patterns into useful insights, demonstrating expertise in machine learning and financial analytics.

CERTIFICATES

• Data Science Foundations (Great Learning)

May 2023

Credential URL

Data analytics and visualization virtual experience (Forage)

March 2023

August 2022

Credential URL

Machine learning using Puther

Machine learning using Python (Internshala)

Credential ID: 68621F92-B5A2-68D6-5BE8-B74CC8C83F08