Akhilesh Kumar Mishra

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Experience

Blackcoffer   March 2024 - Ongoing
Data Science Associate   *Remote*

- Optimized LLMs using **instruction tuning** and **vLLM inference engine**, resulting in a **20% latency reduction.**
- Enhanced **OCR** using **transformer-based vision-language models**, improving extraction accuracy by 25%.
- Implemented agentic RAG pipelines with orchestration to enable context-aware information retrieval.
- Explored Model Context Protocol (MCP) for standardized interaction between LLMs and external tools.
- Developed **automated data pipeline** using **Graph API** in Python, reducing manual data retrieval by **20%**.
- Designed **ETL workflows** for ingesting and preprocessing marketing and user engagement data.

NeoDocto Inc.   September 2023 – November 2023
Machine Learning Intern   *Remote*

- Designed and implemented a **chatbot using a Retrieval-Augmented Generation (RAG) pipeline**.
- Integrated **vector databases with LLMs** to deliver accurate and context-aware responses.
- Analyzed frequent user queries and fine-tuned response generation, boosting user engagement by 10%.

DPDzero   June 2023 – August 2023
Data Analyst Intern   *Remote*

- Analyzed over 10 datasets using **SQL**, **Excel**, and **Python**, uncovering essential insights about loan applicants.
- Enhanced decision-making by leveraging data insights, resulting in a **15%** increase in strategic business decisions.
- Improved data visualization by 25% with interactive Power BI dashboards, simplifying trend and KPI analysis.

Projects

E-Commerce Sales Analysis | *SQL, Power BI*   December 2023 - January 2024

- Explored e-commerce data using advanced SQL, uncovering insights that increased revenue targeting by 30%.
- Created a Power BI dashboard to visualize sales trends, improving marketing effectiveness by 25%.
- Applied RFM segmentation to optimize inventory management and drive targeted business strategies.

Deepfake Detection | *Python, Deep Learning , CNN*   September 2022 - March 2023

- Developed a specialized/customized 4+ layered CNN model for deepfake detection based on extensive literature review.
- Achieved 95%+ accuracy in binary image classification with a hybrid **Inception-ResNet** sequential model.
- Pioneered deepfake detection model on **OpenForensics**, authored research paper on findings and contributions.

Education

Nitte Meenakshi Institute of Technology   July 2019 – July 2023
Bachelor of Engineering, Information Science and Engineering   *CGPA- 8.52*

Certifications

Google Data Analytics Professional Certificate

- Performed data extraction on various datasets comprising 1000+ entries to ensure accuracy and reliability.
- Designed Tableau dashboards with multi-million-row datasets, expediting data-driven decisions by 50%.

Technical Skills

Programming Languages : SQL, Python, C/C++
Machine Learning : Regression, Classification(Random forest, KNN), Clustering
Generative AI: LLMs, SLMs (all-MiniLM-L6-v2), RAG Pipelines
Cloud/Databases : Bigquery, Mongodb, GCP, RunPod, AWS, Sagemaker, Docker
Deep Learning : CNN, ANN, GPT, BERT, Vision-Language Models

Achievements

- Solved more than 100 database problems on LeetCode and HackerRank.
- Authored and shared 10+ data science interview case study solutions on Git, promoting knowledge-sharing.