

SUMMARY

Lead ML Engineer proficient in data analysis, statistical modeling, and machine learning. My expertise is showcased in leading the development of a groundbreaking Mental Health Chatbot, leveraging Large Language Models (LLMs) and cutting-edge NLP techniques. Additionally, I specialize in business intelligence, optimizing course content and platform features to enhance user engagement and satisfaction. With a robust project management background, I've orchestrated collaborative efforts and delivered impactful solutions across diverse domains. Furthermore, I bring a heightened focus on Generative AI, driving innovation in data science and AI through pioneering initiatives.

KEY SKILLS

Data Analysis: Cleaning, Manipulation, EDA, Pattern Extraction
Statistical Analysis: Hypothesis Testing, Regression, A/B Testing
Data Visualization: Tableau, Power BI, Matplotlib, Seaborn
Programming: Python, C, C++, Java, R, Flask, Django
Database Management: SQL, MySQL, MongoDB
Cloud Platforms: Google Cloud Platform, AWS
Machine Learning: Decision Trees, Random Forest, Logistic Regression, Clustering, NLP
Deep Learning: Neural Networks, CNNs, RNNs, GANs
Big Data: Hadoop, Spark
Reporting: Insightful Reports
Business Intelligence: Tableau, Power BI, Dashboards
Tools: Jupyter Notebook, Git, Github, Excel, Google Analytics, Jenkins
Gen AI: RAG models, LLMs. Llama index, LangChain, Vector DB, Embeddings, Retrieval

EDUCATION

Master of Science in Data Science and Analytics	Apr '20 - Oct '20
Florida Atlantic University	Boca Raton, FL
PGD in ML and AI	Jul '20 - Aug '21
IIIT Bangalore	Bengaluru, IN
B. Tech. in Computer Science	Jan '12 - Jan '15
University of Delhi	Hyderabad, IN

PROFESSIONAL EXPERIENCE

Lead ML Engineer	Jan '24 - Mar '24
Omdena <ul style="list-style-type: none">Developed the LLM Mental Healthcare Chatbot utilizing LLama2 & Mistral models, with a team of 6 members for natural language processing functionalitiesEnhanced LLM performance by seamlessly integrating RAG pipeline with scraped data sourcesPerformed RASA framework for user interaction, integrating voice assistance and enhancing chatbot functionalityImproved patient outcomes by 20% through the development of a mental health chatbot utilizing natural language processing	
Student Consultant	Jan '23 - Feb '24
Florida Atlantic University <ul style="list-style-type: none">Guided peers in increasing proficiency in data science through personalized instruction in Python, R, & SQLOffered industry-knowledge-based solutions during individual consultations to enhance professional performanceLed a student consultant team, ensuring seamless communication, coordination, and timely project completion.Accelerated project delivery by one week through strategic task scheduling to effectively balance academic, consulting, & personal commitments	
Data Analyst	Jan '20 - Jul '22
Academic Affairs.in	

- Conducted data analysis to align curriculum with industry demands, boosting course enrollment by 30%
 - Defined key performance indicators for courses, improving student satisfaction by 20% and aligning content with industry standards
 - Monitored user engagement, increasing session duration by 25% and optimizing platform features for higher retention
 - Optimized user experience by implementing data-driven improvements using **Google Analytics**, resulting in a 15% reduction in bounce rate
 - Improved course content & platform experience based on user satisfaction scores, achieving a **20% increase** & refinement of interface & technology
- Business Intelligence Analyst** Jan '20 - Jul '22

Academic Affairs.in

- Boosted student engagement by **20%** within three months through **strategic analysis** of resource utilization & efficient allocation
- Ensured tailored learning experiences, achieving a 25% reduction in resource wastage
- Developed dropout prediction models, improving accuracy by 30% through advanced analytics
- Implemented interventions to prevent attrition, reducing dropout rates by 15% through proactive support

PROJECTS

Mental Health LLM chatbot Jan '24 - Mar '24

Omdena

Lead Machine Learning Engineer

- Led the development of a Mental Health Chatbot leveraging Large Language Models (LLMs) to analyze social media impact on mental health.
- Utilized RAG, Mistral LLM, Chroma DB, and Streamlit for chatbot interface development, deployed using Huggingface.
- Employed LangChain framework throughout the project.
- Gathered depression-related content in PDF format for user recommendations.
- Collaborated on model fine-tuning using SFT and DPO techniques.
- Delivered a user-centric Mental Health Chatbot capable of providing tailored recommendations for depression.
- Learnings about LLama2 Llm, Ollama platform and LlamaIndex framework along with other LLMs on Huggingface.

Enhanced Image Gallery Flask Web Application Jan '23 - Mar '23

Tech Stack: Flask, Google Cloud Storage, Firebase Authentication, Pyrebase, PIL, MarkupSafe, Git, Google Cloud Run.

- Enabled multi-factor authentication using **Firebase Authentication** to bolster data privacy & enhance overall data security
- Image Gallery Functionality: Developed a user-friendly image gallery allowing users to securely upload, view, and manage their images.
- Utilized PIL to extract metadata, including **EXIF data** from uploaded images, significantly enhancing user experience
- Implemented Git integration with Google Cloud Run to enable **CI/CD**, reducing deployment time & utilizing Docker for seamless updates
- Secure Image Storage: Stored images securely in Google Cloud Storage, ensuring data integrity and accessibility through signed URLs while maintaining scalability and reliability.