CHHOTU KUMAR RAJPUT

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EDUCATION

MOHYAL INSTITUTE OF TECHNOLOGY

ONLINE

Master Computer Application (MCA)

Jan. 2025 - Present

MAHARAJA SURAJMAL BRIJ UNIVERSITY

BAYANA

Bachelor's Degree

July 2019 - Aug. 2022

EXPERIENCE

AIML Engineer

Feb. 2025 – Present

 $Maple Cloud \ Technologies$

Noida, UP

- Boosted real-time headcount object detection using Python, FastAPI, and YOLO, Integrated with CCTV through RTSP for seamless object detection and real-time analytics deployed with Docker for scalability and efficiency
- Optimized AutoQuery Pro is an AI-powered, multi-agent tool enabling non-technical users to query SQL/NoSQL databases using NLP, manufactured with Agentic AI(AutoGen), LangChain, LLMs, and FastAPI.
- Engineered an AI-powered Face Verification System for NIA, ensuring compliance with Indian data protection laws, real-time face recognition, suspect tracking, 60 CCTV feeds alert generation, retrospective search, and integration with law enforcement databases.
- Addressed LMS support chatbot operations by creating an AI system that automatically resolves repetitive user queries, IT support, and improving response speed without manual workload.
- Extracted JSON data from APIs, structured it in Hadoop data lake, and assembled automated Power BI dashboards for infrastructure analytics.

Data Scientist- Executive

 $March\ 2023-Feb\ 2025$

GYPRC PVT. LTD.

New Delhi, India

- Collaborated with cross-functional teams to define requirements, design models, and 20 deliver impactful data-driven solutions using R, Python, Power BI, SQL, and Jupyter Notebook, Google Colab, and VS Code.
- Developed and executed a machine learning model to predict water quality and potability, leveraging EC, TOC, THMs, Hardness, and Turbidity parameters, using SciKit-Learn, for analysis or predicting. initiated the Application AWS (EC2) instance.
- Designed an innovative model for precise prediction of All India AQI levels from user-provided latitude and longitude, utilizing unstructured data within an API, using Python, Pandas, Harversine, Streamlit, and significantly enhancing nationwide strategic decision-making.
- Promoted an Automated File Retrieval System with Transfromer model (BERT) for embeddings, ChromaDB, and Streamlit for semantic file search, optimizing the retrieval of the most relevant files.
- Erected an advanced detection system using YOLOv8 for real-time monitoring of safety equipment within production lines; resulted in identifying non-compliance issues in only three out of ten inspections per month on average.
- Applied advanced R programming expertise, successfully completing 15+ data analysis projects with superior visualization techniques ggplot2, dplyr, enhancing EDA processes, and delivering Decision Tree or Random Forest models with 85-90% accuracy for classification, regression, and probability predictions.
- Led and mentored a team of 7 data scientists/analysts, driving the execution of various Data Science (Proof of Concepts) projects and ensuring high performance and project success using AWS, Git.

Data Scientist Trainee

Aug. 2022 – March 2023

 $Intellipa at\ Software\ Solutions\ PVT.\ LTD.$

Remote, India

- Developed real-time data extraction techniques, boosting efficiency by 25% and saving over 10+ hours per week.
- Engineered predictive models to reduce churn by 50-60 cases, achieving an 89% accuracy rate in churn prediction.
- Established retention strategies, decreasing churn by 500-600 cases and significantly improving customer retention.
- Created and maintained engaging interactive dashboards in Power BI using SQL Server, DAX, and Power Query; streamlined data analytics for five key business units to facilitate informed decision-making across the organization.

PROJECTS

LLM Q&A Chatbot | Python, NLP, LangChain, LLM, Gen AI, RAG, Streamlit

Aug. 2023 – Sept. 2023

• Innovated and devised a LangChain Q&A Chatbot using Streamlit, OpenAI GPT-3.5-turbo, RAG, enhancing user interaction and information retrieval with advanced NLP techniques.

Finance Application | Python, FastAPI, React.js, Git, Linux

June 2023 – July 2023

• Overhauled a finance app using Python, FastAPI, and React.js to enhancing user experience, streamline data entry and boosting performance by 30% through form and backend optimization.

TECHNICAL SKILLS

Skills: Communication, Leadership, Teamwork, Strong Stakeholder Management.

Tools: R, Python (NumPy, Pandas, Seaborn, SKLearn, TensorFlow, Keras, PyTorch), Statistics, Data Analysis, Machine Learning, Deep Learning, Computer Vision, NLP, Transformers, CI/CD, VectorDB, OpenAI (LLMs), Gemini AI (LLMs), Agentic AI, Generative AI, SQL, NoSQL, GitHub, Streamlit, FastAPI, MCP, Power BI, Tableau, AWS, Docker, Big Data (Hive, Hadoop, PySpark).

Models Built: Linear Regression, Logistic Regression, Random Forest, XGBoost, YOLOv8, Transformers (LLMs), OpenAI (LLMs), AWS BedRock, Gemini (LLMs), Face Recognition, AutoGen.