

MRINAL BHAN

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[LinkedIn](#) [Portfolio](#) [GitHub](#)

EXPERIENCE

Cerebrum

Associate AI Engineer

Doha (Remote)

May 2024 – Aug 2024

- Worked on a **RAG** based virtual assistant using **Soul Machine** and **Azure AI** trained to provide comprehensive travel planning, live information retrieval, and personalized experiences for visitQatar.com
- Built an AI-Copilot leveraging **OpenAI LLMs** and **Azure Cognitive Services** to transform Power BI Dashboards of MoFA, Qatar into actionable insights, substantially reducing analysis time by 60%

Tech Stack: Python, C#, LangChain, Co-Pilots, Azure AI SDK, Microsoft Tools, REST API

Eaglytics Co.

Artificial Intelligence Intern

Dubai (Remote)

May 2023 – Sept. 2023

- Directed incorporation of ETL pipelines with AI models **PaLM 2**, **Claude V1** on Google Cloud's BigQuery, significantly enhancing data analysis capabilities through advanced NLP and data engineering techniques
- Developed a **GPT-4 & Claude API** powered Slack chat-bot for natural language query processing on Google Analytics dashboards

Tech Stack: Python, Data Engineering (Fast API, Selenium, SQL, Apache Airflow), Hugging Face, Google Cloud Platform

EDUCATION

International Institute of Information Technology, Raipur

B.Tech in Data Science and Artificial Intelligence

90.5%

Dec. 2021 – May 2025

Delhi Public School, Jammu

CBSE Class XII

90.2%

June. 2020 – July 2021

PROJECTS

Reflect-AI: Enhancing Conversational AI Through Self-Reflective Memory-Augmented Retrieval [🔗](#) | RAG, Conversational AI

- Developed ReflectAI, an innovative conversational AI framework with self-reflection and adaptive memory, driving a **10-20% accuracy boost** through context-aware retrieval techniques
- Implemented a **dynamic memory buffer** in Self-RAG that enables AI self-assessment, elevating response similarity scores from 0.60 to 0.87 through iterative refinement

QueryMind: AI-Enhanced Database Chatbot [🔗](#) | LangChain, Groq, OpenAI, Chroma

- Engineered an AI ChatBot leveraging **LangChain** and **Groq/OpenAI**, facilitating natural language interaction with **SQL** databases
- Utilized **Text-to-SQL** pipeling using **SQL-Create-Context** Dataset for enhanced query generation, deployed on Streamlit

Neural LOLgorithm - Deep Learning for Multi-Modal Comedy Data [🔗](#) | TensorFlow, NLP, REST API

- Proposed a **10-point** humor quotient scale using Deep Learning, optimizing performance through API reduction to achieve a Quadratic Weighted Kappa score of 81.3% based on laughter's pitch and intensity.
- Curated a multi-modal data set extracted from Netflix, YouTube etc. using **Whisper**, **OpenPose**, **RoBERTa**, **Librosa**

Real - Time Artistic Transforms via Neural Style Transfer | PyTorch, OpenCV

- Implemented **MSG-Net**, **AdaIN** for live video streams, achieving a processing speed of 20-25 milliseconds for HD resolutions
- Delivered exceptional style-transfer accuracy of **90.44%** outperforming **VGG** benchmarks optimized for high perceptual quality **PSNR** (45 dB) while preserving content integrity **MSE** (0.0034)

SKILLS

Languages: Python, C/C++, SQL, C#

Frameworks: Keras, Tensorflow, Scikit-Learn, Transformers, OpenCV, PyTorch, Django, Hadoop, Apache Spark, Airflow

Developer Tools: Linux, Git/GitHub, Visual Studio, Google Cloud Console, Hugging Face, Microsoft Azure, Power-BI, AWS, Zapier

Soft Skills: Creative, Resilient, Articulate, Leadership, Strategic Thinking, Analytical Solutions, Teamwork

ACHIEVEMENTS

- Microsoft Certified:** Azure AI Engineer Associate AI-102
- Selected for **Amazon ML Summer School 2024** among 85,000 candidates
- Certifications:** Coursera (*Machine Learning Specialisation*), Google (*Analytics & Google Digital Marketing*), The Construct (*ROS*)
- Captain:** College Basketball Team, **Core Member:** AI/ML Club, **Core Member:** Capriccio - Music Society