

# MRINAL BHAN

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

## EXPERIENCE

### Jupiter Money | Machine Learning Intern

*Series C-stage Indian consumer fintech neobank helping millions simplify savings, spending and investing*

Bangalore, IN

July 2025 – Oct 2025

- Built a **personalized merchant recommendation system** for Jupiter Store, UPI and Cards, unifying **50M+ transactions** to deliver context-aware rewards, improving campaign **CTR by 18%**
- Designed **user-level profiles** enriched with behavioral signals, applying these insights to both **personalized merchant recommendations** and **credit card activation funnels** by identifying and targeting high-intent user segment

### Equal Identity | Artificial Intelligence Intern

*Series A-stage LLM VoiceTech startup building India's first AI assistant for 100M+ Indians*

Hyderabad, IN

Jan 2025 – July 2025

- Developed a first-of-its-kind **AI voice assistant** integrating **LLMs, STS, and TTS engines** to handle real-time phone conversations with **<700ms latency**
- Orchestrated and optimized **telephony-grade pipelines** using **WebRTC and SIP/RTP**, containerized via **CI/CD microservices**, enabling multilingual, low-latency dialogue orchestration across dynamic sessions

### Cerebrum | Associate AI Engineer

Doha, QA

*AI innovation firm in Qatar to build creative knowledge-driven solutions that augment user participation at scale* May 2024 – Aug 2024

- Designed and deployed a **RAG-based virtual assistant** using **Azure AI and Soul Machine**, trained to provide comprehensive travel planning, live information retrieval, and personalized experiences for *visitQatar.com*
- Developed an AI Copilot powered by **OpenAI LLMs** and **Azure Cognitive Services** to auto-analyze MoFA's Power BI dashboards, cutting insight retrieval time by **60%**

### Eaglytics Co. | Software Development Intern

Dubai, UAE

*Dubai-based data consulting startup specialising in cloud analytics and AI automation for enterprise clients*

May 2023 – Sept. 2023

- Led integration of **ETL pipelines** with **PaLM 2** and **Claude V1** on Google BigQuery, enhancing enterprise data analysis via advanced NLP workflows
- Engineered a distributed data ingestion architecture integrating **API orchestration, serverless scraping, and GCP batch processing**, delivering scalable, fault-tolerant pipelines for downstream analytics

## PROJECTS

### Reflect-AI: Enhancing Conversational AI Through Self-Reflective Memory-Augmented Retrieval | RAG, Conversational AI

- Developed a self-reflective, **memory-augmented** RAG system that critiques and refines its own responses using **long-term context memory** boosting contextual relevance
- Integrated **dynamic memory buffers** and multi-stage reasoning loops, increasing response similarity from **0.60** to **0.87**

### Neural LOLgorithm - Deep Learning for Multi-Modal Comedy Data | Deep Learning, Audio/Visual ML, NLP

- Trained a model to predict humor on a **10-point scale**, achieving 81.3% QWK accuracy using pitch, timing, and intensity
- Curated a multi-modal data set from streaming platforms (Netflix, YouTube etc.) using **Whisper, Librosa, RoBERTa, OpenFace**

## EDUCATION

### International Institute of Information Technology, Raipur

90.2%

*B.Tech in Data Science and Artificial Intelligence*

Dec. 2021 – May 2025

## SKILLS

**Languages:** Python, SQL, JavaScript, C++, C#

**Frameworks:** LangChain, Transformers, Hugging Face, FAISS, PyTorch, TensorFlow, Scikit-learn, Keras, Whisper, OpenCV

**Developer Tools:** Linux, Git/GitHub, JupyterLab, Postman, Docker, Kubernetes, REST API, LangSmith, PromptLayer

**System, Infra & Cloud:** Azure SDK, AWS (Lambda), GCP, PostgreSQL, MongoDB, Redis, ChromaDB, Pinecone, FastAPI

## ACHIEVEMENTS

- **Microsoft Certified:** Azure AI Engineer Associate (*AI-102*)
- Selected for **Amazon ML Summer School 2024** (Top 1% of 85K+ applicants) and **Buildspace S5** - GenAI Builder Sprint (2024 cohort)
- **Publication:** Real-Time Artistic Transforms via Neural Style Transfer — IEEE TENSYMP & WACV 2024
- **Leadership:** College Basketball Team - **Captain**, AI/ML Club & Music Society - **Core Member**