ARSALAN SHAIKH

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PROFILE

AI Engineer currently architecting scalable ad-tech solutions at Adastraa AI, including an AI-powered Ads Copilot and Amazon Marketing Stream pipelines. Specialist in cloud-native AWS infrastructure (SQS, EC2, Amplify), LLMs, and MLOps. High-impact developer and Mumbai Hacks 2025 Finalist (selected from 15,000+ participants).

EXPERIENCE

Machine Learning Engineer | Adastraa AI   Dec 2025 – Present

- Building an AI-powered Ads Copilot system for campaign optimization using real-time insights and automation.
- Designed and deployed Amazon Marketing Stream–based data pipelines with AWS SQS to process Amazon Ads data at scale.
- Deployed and maintained production systems on AWS EC2 and AWS Amplify with secure, cloud-native configurations.

Gen AI Engineer (Remote) | Journalyst   Oct 2025 – Dec 2025

- Built a real-time voice-driven trading psychology coach using **Flask and React** for seamless multimodal interaction.
- Integrated **Groq Llama 3.3, Whisper ASR, and PlayAI TTS** with a **Pinecone-backed RAG pipeline** for context-aware reasoning.
- Developed a custom **Voice Activity Detection (VAD)** module and adaptive intent-prompting system for personalized coaching.
- Delivered real-time psychological insights by analyzing user speech patterns and trading behavior.

Software Engineer Intern (Remote) | Dictation Daddy   Sep 2025 – Oct 2025

- Fine-tuned **OpenAI Whisper Large** for domain-specific transcription, improving production accuracy.
- Optimized inference pipelines, reducing **latency by 40%+** (1s → 600ms).
- Deployed scalable APIs with robust monitoring, logging, and fault-tolerance.
- Integrated **Gemini 1.5 LLM** for adaptive text formatting based on contextual intent.

SKILLS

- **Machine Learning & Deep Learning:** Regression, Classification, Clustering, Ensemble Methods, Feature Engineering, PCA, Neural Networks, CNN, RNN/LSTM/GRU, Real-Time ML Systems
- **Generative AI & LLMs:** OpenAI GPT APIs, Gemini 1.5, Groq Llama (3.1 / 3.3), Whisper ASR, PlayAI TTS, LangChain, RAG Pipelines, Prompt Engineering
- **NLP:** Tokenization, Text Preprocessing, Word2Vec, BERT, Text Classification, NLTK, spaCy
- **Cloud (AWS):** EC2, Amplify, S3, SQS, Amazon Marketing Stream
- **MLOps & DevOps:** Docker, CI/CD Pipelines, Model Deployment, Logging, Monitoring
- **Data & Analytics:** Exploratory Data Analysis (EDA), SQL (MySQL), NoSQL (MongoDB), Power BI, Matplotlib, Seaborn
- **Programming & Frameworks:** Python (NumPy, Pandas, Scikit-Learn, TensorFlow, PyTorch), FastAPI, Flask, React

EDUCATION

B.Tech in Artificial Intelligence & Data Science   2021 – 2025
Marathwada Institute of Technology, Aurangabad