

WORK EXPERIENCE

Moative (Data Scientist)

May 2025 - Present

- **CollateralIQ | Construction Equipment & Commercial Asset Valuation:** Developed an **XGBoost regression model in Python** using **30,000 historical auction records**; achieved R^2 of **0.92** and **9% median absolute percentage error** within a one-month delivery cycle. Engineered asset age, usage, make/model, geography and market features and generated uncertainty-aware collateral value ranges for lending and underwriting.
- **Agentic Utility Voice Bot Platform:** Developed LangGraph/Pipecat evaluation workflows for real-time voice and chat agents using golden-script scenarios, multi-strategy tool-call validation and LLM-as-judge checks for tool accuracy, safety/PII, helpfulness and customer-verification flows.
- **Electricity Usage Time-Series Clustering:** Engineered multi-scale temporal features from high-frequency consumption data in Python and applied **UMAP + KMeans** for behavior-based premise segmentation; evaluated cluster separation using variance-ratio analysis.

Evonence India Pvt Ltd (Jr. AI / ML Engineer)

Sep 2024 – Mar 2025

- Integrated **Dialogflow CX** decision trees with Gemini APIs to build an adaptive health-profile chatbot that personalized diet and exercise onboarding from structured user inputs.
- Built Python-based NLP extraction, standardization and matching pipelines for supplier/product data from CSV, Excel and PDF files, improving downstream product mapping and integration quality.

Ascent Risk and Resilience (Artificial Intelligence Engineer – Product Development)

May 2024 – Jul 2024

- Prototyped an offline business-continuity information-retrieval chatbot using **Llama and RAG**; developed AI modules for reconciliation automation, transaction-pattern analysis, anomaly detection and fraud-risk screening.

EDUCATION

M. Tech	Indian Institute of Science (IISc), Bangalore	7.4/10	Geotechnical Engineering	Oct 2021-Aug 2023
Integrated Dual Degree	IEST, Shibpur	7.17/10	Engineering and Water Resources; Engineering and Management	June 2014-June 2019

PUBLICATION

IGGE	• Published “ Efficient Prediction and Analysis of Anchor Foundations in Reinforced Soil Using Interpretable XGBoost-SHAP Machine Learning Algorithm ”; applied XGBoost for uplift-capacity prediction, SHAP for explainability and Monte Carlo simulation for reliability analysis under Prof. G. L. Sivakumar Babu.
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TECHNICAL SKILLS

Agentic AI / LangGraph	RAG / LLM Apps	LLM Evaluation	NLP	Python
Dialogflow CX / Gemini	Llama	API Integration / Testing	Pandas / NumPy	Scikit-learn
Machine Learning	XGBoost / SHAP	Predictive Modeling	Anomaly Detection	Model Validation
Time-Series Analysis	Clustering / UMAP	Statistics & Probability	Data Visualization	Feature Engineering
TensorFlow / Keras (Found.)	Regression / Classification	Matplotlib / Seaborn	Data Cleaning	Error Analysis

PROJECTS

NLP, API, Predictive Modeling	• Address Classification using NLP and API Integration: Built feature-engineered scoring and API-enriched classification of customer addresses into good, medium and bad quality groups.
Recommendation / Regression	• Movie Audience Rating Prediction: Used structured metadata and text-derived NLP features to predict audience ratings, comparing classical ML and deep-learning feature representations.
XGBoost, SVM, Random Forest	• Transaction Matching, Churn and Fraud Models: Built supervised ML workflows for transaction reconciliation, customer churn and credit-card fraud detection and evaluated them using classification metrics.

RELEVANT COURSEWORK

IISc Audited	Introduction to Computing for AI and Machine Learning - computational thinking, Python-based ML foundations and neural-network training.	June-Aug 2022
IISc Audited	Data Science for Smart City Application - data preprocessing, regression, optimization, statistics, decision trees, KNN, NLP and neural networks.	June-Aug 2022

POSITIONS OF RESPONSIBILITY

Leadership	• Former General Secretary, Les Thespian - IEST Drama Society; Core Committee Member, REBECA Annual Cultural Festival; Core Member, SCAGE creative arts society; Founding Member, Wrihanshi Foundation.
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INTERESTS

Public-spiritedness, painting, performing arts/drama, travelling, music and Kathak dance.