

OBAID TAMBOLI

Gen-AI Specialist | ML Engineer

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EXPERIENCE

Sr. Executive Consultant (AI/ML)

Deloitte India

📅 2024 – Present 📍 Mumbai, India

- **Engineered** and **deployed** a **GenAI-based compliance checker** utilizing **Azure Document Intelligence, LangChain, and RAG pipelines**, **reducing manual review effort by 50%** through automated document analysis.
- **Developed** and **optimized** scalable **ETL pipelines** for complex IFRS 9 PD/ECL computations, **improving data throughput by 40%** across large-scale banking operations.
- **Implemented** advanced **panel regression, logistic regression, classification, and clustering algorithms** for financial stress testing and segmentation, **elevating predictive accuracy** for enterprise risk models.
- **Designed** and **automated MLOps pipelines** with CI/CD, MLflow, and Docker, **cutting model deployment time by 30%** and ensuring reproducible, scalable rollouts.
- **Orchestrated** the architectural design and migration of financial blob documents to a relational database, **enabling hierarchical analysis** and **achieving faster query performance** for critical reporting.
- **Leveraged BigQuery and PySpark** to **engineer** and **optimize** large-scale data processing pipelines, **automating credit risk analytics** and regulatory reporting for enhanced efficiency.
- **Conducted** rigorous statistical validation of deployed ML models, **ensuring robustness and compliance** with **Basel/IFRS standards** and mitigating regulatory risks.
- **Managed** and **maintained Git-based version control workflows** for collaborative development, **guaranteeing reproducibility** of ML stress testing frameworks across global teams.

Data Science Intern

Respirer Living Sciences Pvt. Ltd

📅 2023 📍 Pune, India

- **Developed** and **deployed** resilient **time series forecasting models** for real-time healthcare monitoring systems, **enhancing predictive accuracy by 15%** for critical patient indicators.
- **Applied** and **integrated classification and clustering techniques** to **improve the precision of anomaly detection by 20%** in large-scale environmental datasets.
- **Implemented Explainable AI (SHAP, LIME)** techniques within production models, **increasing model transparency and building stakeholder trust** in predictive outputs.
- **Built** and **monitored real-time ML inference pipelines**, **supporting adaptive calibration mechanisms** and ensuring continuous model performance and relevance.

TECHNICAL SKILLS

- **Core Programming & Data Science:** Python (Pandas, NumPy, Scikit-learn, PyTorch, NLTK), SQL, Java – solid foundation for statistical modeling, feature engineering, and algorithm development.

Exploratory Data Analysis in Python | Udemy

Hypothesis Testing | Udemy Neural Networks in Python | Udemy Intro to Deep Learning in Java | Udemy

Data Analytics & EDA App | Udemy
- **Machine Learning & Statistical Modeling:** Panel Regression, Logistic Regression, Classification, Clustering, Segmentation Analysis, Time Series Forecasting, Statistical Validation; Explainable AI (SHAP, LIME) – applied across risk modeling, compliance, and forecasting use cases.

Credit Risk in Python | Udemy

Introduction to Finance, Accounting, Modelling & Valuation | Udemy
- **GenAI & Intelligent Agents:** LangChain, HuggingFace Transformers, LangGraph, Google Agentic Frameworks (AutoGen, Model Context Protocol - MPC), Retrieval-Augmented Generation (RAG) pipelines – building autonomous LLM-driven agents for compliance checking, reporting, and knowledge extraction.

Gen AI Foundational Models for NLP & Language Understanding | IBM

Introduction to Generative AI | Google Cloud

Introduction to Large Language Models | Google Cloud

Designing AI Assistants | Udem

LangChain | Udem

LangGraph | Udem

- **Responsible AI & Ethics:** Bias mitigation, fairness, explainability, and compliance-driven AI practices — ensuring ethical, transparent, and trustworthy AI systems.

Introduction to Responsible AI | Google Cloud

Responsible AI: Applying AI Principles | Google Cloud

Responsible AI | Udem
- **Cloud & Big Data Platforms:** Azure ML (Document Intelligence, Cognitive Search), Google Vertex AI, BigQuery, PySpark, Docker, Git, CI/CD pipelines — orchestrating end-to-end ML & GenAI workflows from training to enterprise-scale deployment.

Google Cloud Professional ML Engineer
- **MLOps & Model Lifecycle Management:** MLflow, Model Monitoring (EvidentlyAI, Prometheus), Data Pipeline Orchestration (Airflow, Prefect) — ensuring reproducibility, scalable deployment, and continuous monitoring.

Google Cloud Professional ML Engineer

Data Analytics & EDA App | Udem
- **Visualization & Automation:** PowerBI, Matlab, N8n (workflow automation) — translating models into business insights and automated decision support.

Data Visualization with PowerBI | Microsoft (recommended)

PROJECTS

AI Text Detection

📅 Jan 2024 – Feb 2024

- Built a robust **domain-adaptive self-supervised AI text detection model** using PyTorch, HuggingFace, contrastive loss, and MMD, achieving high generalization across domains.

Mufti Chatbot

📅 Nov 2024 – Ongoing

- Fine-tuned **Llama2-7B model** on Islamic QA dataset, improving response accuracy.
- Integrated **RAG pipeline with LangChain** for contextual retrieval.
- Built web interface with Chainlit and deployed on **Azure ML**.

EDUCATION AND CERTIFICATIONS

Data Science Engineering (Major) EECS (Minor)

Indian Institute of Science Education and Research

📅 2020 - 2024

📍 Bhopal, Madhya Pradesh

- **Mathematics:** Linear Algebra, Multivariable Calculus, Discrete Maths, Probability & Statistics
- **Computer Science/Data Science:** Data Science in Practice, Machine Learning, Computer Vision, Data Structures and Algorithms, Artificial Intelligence, Advanced Natural Language Processing (ongoing)

CGPA - 8.23/10

Higher Secondary

Poona College

📅 2020

Percentage - 84.00%

📍 Pune, Maharashtra

Secondary

Bhishops CO-ED School, Undri

📅 2018

Percentage - 91.40%

📍 Pune, Maharashtra