AMIT DUA
+91-9811471818
amu3486@gmail.com

PROFILE SUMMARY

Technical Architect and Azure Certified Data Engineer with over 15 years of experience in designing and delivering scalable, secure, and intelligent data-driven solutions. Specialized in **Generative AI (LLMs)**, **Agentic Workflows**, **LangChain**, and **MCP-based architectures**. Proven expertise in modernizing legacy systems, leading AI/ML initiatives, and implementing cloud-native applications across Risk, Finance, and Customer Experience domains. Adept at leveraging **Azure**, **DevOps**, and **containerized microservices** to drive innovation and operational efficiency.

EDUCATION

➢ Advanced Data Science Specialization, IIT Kharagpur
➢ Masters, Punjab Technical University – 68.34%
➢ Bachelors, MDU – 72.7%

CAREER OUTLINE

➢ Modernized AML and Credit Risk Modelling platforms, enhancing scalability and reducing deployment time by 40%.
➢ Led cross-squad GenAI initiatives and collaborated with Product Owners to establish scalable data pipelines.
➢ Pioneered agentic workflows using LangChain and MCP servers to automate decision-making in risk analytics.
➢ Designed and deployed cloud-native solutions using Azure, Kubernetes, and CI/CD pipelines with reusable YAML templates.
➢ Acted as Security Champion, contributing to secure design practices, documentation, and security guild initiatives.
➢ Collaborated with cross-functional teams to establish ADF pipelines and Logic Apps for enterprise data orchestration.
➢ Contributed to Cloud Cost Optimization and GenAI Virtual Team strategies, aligning with organizational goals.

CERTIFICATIONS

➢ Azure Certified Data Engineer
➢ Big Data & Spark Fundamentals – IBM (2015)
➢ Six Sigma Green Belt (2014)
➢ Data Science – Edu-pristine & Coursera (2014)
➢ Base SAS Certified (2013)
➢ Certified SQL Developer – CMC (2012)

IT Skills

- **AI & GenAI Technologies:**
  LLMs (OpenAI, Cohere, Azure OpenAI), LangChain, LangGraph, Agentic Workflows, Synthetic Data Vault, DataBricks DBLGen, Microsoft Copilot Studio, Azure AI Search, NLP (NLTK, Stanford NLP), TensorFlow, PyTorch, Keras
- **Cloud & DevOps:**
  Azure (ADF, Logic Apps, Azure Storage, Azure Kubernetes Service), MCP Servers, Kong Gateway, GitHub Actions, Azure Pipelines, Jenkins, YAML, Docker, Kubernetes
- **Programming & Tools:**
  Python, SQL, .NET, PyCharm, Anaconda, RStudio, Visual Studio, GitHub, BitBucket, GitHub Copilot
- **Analytics & Visualization:**
  Power BI, Tableau, Scikit-learn, MLflow

ORGANIZAIONAL EXPERIENCE

- Tata Consultancy Services
  Gen AI Consultant | Nov 2017 – Present

  - Led GenAI initiatives in Risk & Finance, including synthetic data generation using LLMs and agentic orchestration.
  - Developed internal RAG-based chatbot for knowledge retrieval using Azure OpenAI, LangChain, and Azure Search.
  - Architected intelligent document processors for mortgage automation using LLMs, Azure OCR, and image processing.
  - Built multi-turn conversational agents with LangChain and Microsoft Copilot Studio for customer service automation.
  - Designed and deployed credit risk modelling applications using Python, Kubernetes, and Azure Cloud.
  - Implemented reusable CI/CD pipelines using YAML, Azure Pipelines, and GitHub Actions.
  - Served as Security Champion and contributed to Security Guild initiatives and documentation.
  - Collaborated on Cloud Cost Optimization and GenAI Virtual Team initiatives.

- Ameriprise Financial Pvt Limited
  Data Scientist | Oct 2016 – Nov 2017

- Fidelity Information Services
  Data Scientist | Feb 2013 – Oct 2016

- American Express GT Services Centre(EXL)
  Developer Analytics | Sep 2009 – Feb 2013

- British Airways Back Office Centre
  Data Analyst | Jan 2009 – Sep 2009

- Interglobe Technologies Pvt Ltd
  Lead – Business Intelligence | Feb 2006 – Oct 2008

- Varun Technologies Pvt Ltd
  Robotics/Embedded Engineer | Feb 2004 – Feb 2006

Internal RAG-based Chatbot for Knowledge Retrieval:

Goal: Enable employees to access internal knowledge efficiently
Tech Stack : Python, Azure OpenAI, Azure Search , Azure Cloud Foundry

Mortgage Document Processor using LLMs:

Goal: Automate mortgage document classification, validation, and data extraction
Tech Stack : Python, Azure OCR, Azure OpenAI, LangChain, Image Processing

GenAI-Powered Customer Service Chatbot:

Goal: Enhance customer experience with multi-turn conversations and real-time intent detection

Tech Stack : Microsoft Copilot Studio, Azure Open AI, Azure AI Search, Azure Storage, Kong, Data Lake

Credit Risk Modelling Platform:

Goal: Reduce credit loss through robust IRB & IFRS9 models
Tech Stack: Python, Docker, Kubernetes, Azure, Celery, RabbitMQ, Tox, Poetry

Synthetic Data Generator using GenAI:

Goal: Generate production-like synthetic data for testing and development
Tech Stack: Python, Synthetic Data Vault, Cohere LLM, DataBricks DB-Gan, GitHub Copilot

AML- Customer Screening & Transaction Filtering:

Goal: Reduce false positives in AML screening using NLP
Tech Stack: Python, Text Mining, NLP, Machine Learning

Chat Transcript Sentiment Analysis:

Goal: Analyse customer sentiment from chat logs
Tech Stack: Hadoop, Python, NLP, Text Mining

Forecasting Tool for Business Insights:

Goal: Improve forecasting accuracy using ML models
Tech Stack: Python, Big Data, ANN, Random Forest, HMM