Ahmer Jamil

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Education

University of Florida **Aug. 2025 – Present**
PhD in Computer Engineering *Gainesville, Florida*
Area of study: Dependable Systems for HPC, Fault Tolerance and Machine Learning

Lahore University of Management Sciences **Aug. 2019 – June. 2023**
BSc in Computer Science *Lahore, Pakistan*
Graduate with Distinction, CGPA 3.78

Experience

University of Iowa – *Graduate Research Assistant* **Jan. 2025 – Aug. 2025**
- Engineered LLVM/runtime tools for instruction-level resilience analysis and fault detection in HPC workloads
- Facilitated resilience tooling and analyses, supporting experiments for dependable systems research

Systems Limited – *Associate Consultant, AI* **June. 2023 – July. 2024**
- Implemented LLM solutions with Microsoft using Azure and Retrieval-Augmented Generation (RAG) to query HR policies and finance, reducing HR tickets by **40%** and improving invoice resolution speed by **60%**
- Delivered ML solutions for international clients such as Etisalat using PySpark, DataRobot, and Databricks

VentureDive – *Data Analysis Intern* **July. 2022 – Aug. 2022**
- Automated data collection with Selenium & online plotting tools to generate GeoJson data for Pakistan's constituencies
- Constructed an interactive webpage by plotting the GeoJson file with Python, Flask, and HTML

Habib Bank Limited – *Branch Banking Intern* **June. 2022 – July. 2022**
- Designed ML models to measure employee effectiveness within branch banking operations
- Evaluated employee performance metrics to identify patterns for targeted training and performance improvement

JS Bank – *Data Science Intern* **June. 2021 – Aug. 2021**
- Analyzed customer data via SQL queries to build predictive models on 500k+ records
- Transformed insights into actionable strategies to improve campaign targeting, increasing response rates by **12%**

Projects

LLM-Powered Chatbot
- Created a knowledge-based chatbot using Retrieval-Augmented Generation (RAG) with ChromaDB
- Integrated OpenAI GPT-3.5 with a Python backend and HTML/CSS frontend, achieving **90%+** query accuracy

Customer Segmentation
- Directed ML-based B2B customer segmentation for Etisalat, categorizing **95%** of businesses and cutting manual effort and processing time by **90%** using Databricks & DataRobot
- Modeled revenue forecasting for customer segmentation with forecasted revenue as a key feature, improving segmentation accuracy by **15%** and providing reliable insights for decisions, explained with SHAP and LIME

Fake News Detection
- Devised misinformation detection pipeline with scikit-learn and NLP libraries (NLTK, spaCy)
- Applied frequent pattern mining (Apriori, FP-Growth) with Random Forest and SVM classifiers, achieving **87%** classification accuracy and improving F1-score by **15%** over baseline models

Fraud Detection
- Built credit card fraud detection models using ensemble learning and cloud-based platforms (Snowflake, Dataiku)
- Resolved class imbalance and resource constraints through data preprocessing, SMOTE, and robust evaluation

Knowledge Distillation Research [GitHub]
- Explored compression methods for deep neural networks with teacher–student architectures implemented in PyTorch
- Demonstrated that direct pipelines reduced accuracy loss by ∼**5–7%** compared to intermediary methods

Technical Skills

Programming Languages & Databases: Python, C++, SQL, R, Haskell, JavaScript, Oracle, MySQL
Libraries & Frameworks: NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, HuggingFace, OpenCV, PySpark, Flask, React Native, Spark, NLP
Tools & Platforms: AzureML, AWS, DataRobot, Dataiku, Docker, Linux, Tableau, Power BI
Generative AI / NLP: RAG, GPT-3/4, Vector DBs, LangChain, ChromaDB, AzureAI, Fine-tuning, Document Intelligence
Other Skills: Data Modeling, Software Architecture, Churn Analysis, A/B Testing, Bayesian Inference
Productivity & Design: Microsoft Office, Canva, Figma
Certifications: Generative AI Fundamentals (Databricks), Large Language Models: Application through Production (Databricks), Microsoft Azure SQL (Coursera), Intermediate Data Modeling in Power BI (DataCamp)