Muhammad Ghulam Jillani

 LinkedIn | **+92-321-1174167** | **+92-321-1179584** | **JillaniPortfolio.com** | **m.g.jillani123@gmail.com** | **Kaggle** | **GitHub** | **Medium**

Professional Summary

Senior Data Scientist and Machine Learning Engineer with a strong focus on Generative AI LLMs, specializing in developing and deploying cutting-edge AI solutions that drive innovation in SaaS and PaaS environments. Expert in enhancing data processing capabilities, optimizing workflows, and creating intuitive AI applications to solve complex business challenges and boost operational efficiency. Recognized as a 24x LinkedIn Top Voice, Top 100 Global Kaggle Master, KaggleX BIPOC Mentor, and a contributor to both the NVIDIA Developer Program and Google Developer Group, I am an industry-recognized leader committed to advancing AI-driven growth.

Technical Skills

- **Programming & Development:** Proficient in Python, Scikit-Learn, TensorFlow, Keras, PyTorch, NLTK, Transformers, EDA, ETL, PySpark, Matplotlib, Plotly, OpenCV, SQL, Vector Databases, Flask, Streamlit, Docker, GitHub Actions, CI/CD pipelines, NoSQL, and Git.
- **Data Science & AI:** Expertise in Machine Learning, Deep Learning, Data Analysis, Predictive Modeling, Artificial Intelligence, Statistical Modeling, Data Visualization, Data Engineering, Model Deployment, Time Series Analysis, Cloud Machine Learning, Big Data Technologies, Natural Language Processing (NLP), Prompt Engineering, Generative AI, LangChain, Llama-Index, LangGraph, Crew-AI, LangSmith, and Retrieval-Augmented Generation (RAG) with both open-source and paid LLM models.
- **Management & Operations:** Skilled in Business Analysis, Cloud Platforms (Heroku, GCP, Azure, AWS), MLOps, AIOps, MLflow, AutoML, PyCaret, Process Automation, Stakeholder Management, Decision-Making, Power BI, Agile Methodologies, Microservices Architecture, Team Building, Project Management, and Product Management.
- **Communication & Collaboration:** Strong in Effective Communication, Collaboration, Stakeholder Management, and Team Building.
- **Languages:** Fluent in English and Urdu with full professional proficiency.

Experience

Sr. Data Scientist & Machine Learning Engineer	BlocBelt	Maryland, USA	12/2022 – Currently

- **Strategic AI Leadership & Team Management:** Led the development of AI-driven SaaS and PaaS solutions, managing a team of three, with a focus on Big Data, Data Analysis, and AI Engineering. This initiative enhanced operational efficiency, resulting in $2M in cost savings for clients.
- **Sales Forecasting & Market Analysis:** Improved sales forecasting accuracy by 80-90% through data analysis across 120+ market entities, leading to actionable growth strategies and enhanced sales workflows.
- **E-Commerce Platform Innovation & Sales Growth:** Successfully launched a client-focused personalized fashion e-commerce platform featuring an advanced recommendation engine. This initiative led to an 80% increase in sales and a 200% surge in online orders, surpassing project goals by three months ahead of schedule.
- **Operational Excellence & Cost Reduction:** Streamlined data processing and optimized workflows using OpenCV, leading to significant cost savings and improved efficiency.
- **Data-Driven Strategy & Revenue Growth:** Led the development of statistical models and predictive analytics, resulting in an 18% increase in company revenue. Enhanced data visibility by 45% with strategic dashboards, fostering cross-functional collaboration.
- **AI Integration & Enhanced Digital Sales Experience:** Integrated AI into SaaS and PaaS offerings, focusing on distributed systems and conducting over 25 A/B tests to refine the e-commerce experience, driving technological advancements.

AI Kaggle Master Mentor	Google-Kaggle	San Francisco, USA	12/2022 – 11/2023

- Engaged part-time, dedicating 18-22 hours weekly, representing **Jillani SoftTech** as a Data Scientist and ML Engineer. Provided expertise in Tech Life and Coding through the Kaggle-X BIPOC Mentorship Program.
- Achieved recognition as the first Pakistani in the Kaggle-X BIPOC Mentorship Program, ranking within the **top 100 Kaggle contributors globally.**
- Led a team of four, enhancing their technical skills, confidence, and community contributions.
- Played a key role in advancing the data science community, driving technological and data-driven innovations.

Data Scientist	Crypto Express	Thailand	01/2022 - 12/2022

- Developed an Anti-spoofing Face-App, enhancing digital identity security and reducing identity fraud by 70%.
- Applied AI and ML techniques to solve industry-critical issues, improving efficiency by 25% and reducing operational costs by 15%.
- Engineered predictive models and provided actionable insights, leading to a 20% revenue increase through data-driven decision-making.
- Advanced expertise in EDA, Machine Learning, and Deep Learning, saving over 250+ hours of manual analysis annually.
- Successfully deployed AI/ML projects remotely, adapting to dynamic conditions and gaining significant experience in the AI/ML field.

Artificial Intelligence Engineer	Pakistan Freelancing Training Center	Lahore, Pakistan	01/2021 - 12/2021

- Led AI and Data Science training sessions, preparing students to tackle real-world challenges.
- Designed and deployed models using TensorFlow and Keras, improving system efficiency and accuracy.
- Bridged the gap between academic learning and industry skills, driving practical applications of AI technologies.
- Automated repetitive data tasks using Python, significantly reducing manual labor and error rates.
- Engaged in ongoing AI research to apply cutting-edge methodologies to projects.

Projects

- **Health Assistance Application (LLM):** Developed a comprehensive health assistance application leveraging the Gemini Pro LLM model, RAG, and LangChain. This solution supports doctors and patients by providing detailed medical information, symptom diagnosis, treatment suggestio ns, and preventive healthcare advice. The integration of generative AI ensures accurate and personalized health recommendations, significantly enhancing patient care and medical consultations.
- **AI-Powered Blog Generator with Bedrock and Streamlit (LLM):** Created an AI-powered blog generator using Llama 3 8B and AWS Bedrock services, integrated with Streamlit for a seamless user experience. Utilized Retrieval Augmented Generation (RAG) for dynamic fine-tuning on updated datasets, enabling the creation of realistic AI-generated blog content. The solution automates content creation, editing, and publishing, enhancing content marketing and engagement.
- **Legal Document Analysis Chatbot (LLM):** Designed a Python Flask-based web application utilizing the Gemini Pro LLM model for AI-driven legal document analysis. This chatbot facilitates efficient document management by providing a custom AI chat interface for querying legal PDFs. Deployed on AWS, the solution enhances legal research and document review processes with scalability and reliability.
- **Low-Code No-Code Predictive Analytics Platform (LLM):** Developed an intuitive predictive analytics platform powered by the GPT-4o LLM Model and PyCaret, hosted on GCP. The platform empowers non-technical users to perform both supervised and unsupervised tasks, including time series analysis, on CSV datasets with ease. It supports data cleaning, exploratory data analysis (EDA), automated machine learning, and hyperparameter optimization, democratizing advanced analytics and accelerating data-driven decision-making.
- **DocuWiz AI (LLM):** Built DocuWiz AI, a document intelligence application capable of analyzing various document formats, including PDFs, DOCX, TXT, PPTX, CSV, and XLSX. Integrated advanced NLP models like BART and DistilBERT for text extraction, summarization, sentiment analysis, and topic modeling. The solution also incorporates RAG and LLMs for enhanced document analysis, and provides statistical insights and visualizations for data analysis, deployed with an interactive Streamlit UI on GitHub.
- **Harvestify-AI-Powered-Plant-Health-Assistant:** Developed "Harvestify," an AI-driven application that diagnoses plant leaf diseases through image analysis, recommends crops based on soil and weather data, and suggests appropriate fertilizers. The application is powered by machine learning and deep learning models and is deployed on Microsoft Azure cloud, ensuring real-time analysis and accessibility.
- **Customer Satisfaction Prediction System (MLOps):** Created a Customer Satisfaction Prediction System using ZenML and MLflow within an MLOps framework. Achieved 93% accuracy in predicting customer satisfaction through robust predictive models. Enhanced pipeline management and deployment efficiency, leading to improved customer insights and decision-making processes.

Education

Bachelor in Computer Science (Major: Artificial Intelligence and Computer Science)	Institute of Management Sciences

CERTIFICATIONS

- **IBM Machine Learning Specialization Professional Certificate**, IBM.
- **Deep Learning Specialization**, DeepLearning.ai.
- **Machine Learning Specialization**, DeepLearning.AI.
- **Google Advanced Data Analytics Professional Certificate**, Google.
- **Google Business Intelligence Professional Certificate**, Google.
- **Advanced Machine Learning on Google Cloud Specialization**, Google Cloud.
- **MLOps | Machine Learning Operations Specialization**, Duke University.
- **AI Product Management**, Duke University.
- **IBM AI Product Manager**, IBM.

- **Generative Adversarial Networks (GANs) Specialization**, DeepLearning.ai.
- **Machine Learning Engineering for Production(MLOps)**, DeepLearning.ai.
- **Microsoft Azure AI Fundamentals AI-900 Exam Prep Specialization**, Microsoft.
- **Preparing for Google Cloud Certification: Machine Learning Engineer**, Google.
- **Google Project Management: Professional Certificate**, Google.
- **Prompt Engineering for ChatGPT**, Vanderbilt University.
- **AWS Cloud Solutions Architect Professional Certificate**, Amazon Web Services.
- **PracticalData Science on the AWS Cloud Specialization**, DeepLearning.ai.
- **IBM Generative AI Product Managers**, IBM.