# Muhammad Abdullah Riaz

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Work Authorization: GC (no sponsorship req.)

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# **ABOUT ME**

AI/ML Engineer with a passion for crafting customer-centric AI solutions. Proven ability to deliver successful proof-of-concepts (POCs) leveraging Large Language Models (LLMs) and other technologies (e.g., RAG Model, Co-Pilot). Strong foundation in AI/ML practices and adept at working both independently and collaboratively.

#### **TECHNICAL SKILLS**

• Python, HTML, CSS

• Pandas, Matplotlib, NumPy

• TensorFlow, Scikit-Learn

• GenAI, LLM, GANs

• Lang Chain, Hugging face • Tableau, Power BI

• PostgreSQL, MySQL

• AWS (EC2, S3, RDS)

• Deep Learning, Spark

• Machine Learning, RAG • AWS Lambda, Athena

• Azure ML, MLOps

• MS Power Automate

• Node JS, RestAPI's, JSON • Kubernetes, Docker

• Jenkins (CI/CD), Gitlab CI • Analytical CRM, Looker

• Snowflake & DevOps

• AWS Glue, CloudWatch

• Shell Scripting/Unix

# PROFESSIONAL EXPERIENCE

## **Datasphere Consulting LLC**

NYC, United States

Data & AI Analyst /GenAI Engineer

July 2022 - Current

- Design, develop, and implement GenAI-driven solutions using CoPilot and Copilot Studio.
- Develop and maintain Copilot agents to support GenAI use cases.
- Integrate AI solutions with existing systems and third-party applications, services, and APIs.
- Led cross-functional collaboration to define and translate Generative AI (GenAI) use cases into real world AI application.
- Implemented **context-aware prompt** engineering with OpenAI's **GPT-3.5-turbo**, dynamically injecting retrieved context to reduce **hallucinations** and improve answer relevance.
- Developed a serverless automation pipeline using AWS Lambda, enabling seamless code management and workflow orchestration without manual intervention.
- Developed a real-time cryptocurrency trend monitoring system leveraging AWS services for data ingestion, storage, and notification. Utilized crypto API endpoints to fetch trending cryptocurrencies, stored the data in Amazon S3 (JSON format), and triggered automated Slack alerts via AWS Lambda and CloudWatch Events, ensuring seamless version control automation without manual intervention.
- Implemented **secure environment management** with **AWS Secrets Manager**, ensuring sensitive credentials remain protected.
- Improved developer productivity by automating routine code management tasks, enhancing efficiency in collaborative software development.
- Designed and implemented interactive dashboards in Amazon Quicksight to visualize data, providing real-time insights and facilitating quick response to emerging market trends.
- Integrated a Large Language Model (LLM) from Hugging Face into a custom AI-powered workflow, enabling automated text generation and decision support.
- Designed a scalable API-driven solution to process **natural language prompts** and generate **context-aware responses**, improving efficiency in **automated content generation**.
- Lead the design, development, and deployment of Generative AI applications.
- Utilize Large Language Models (LLMs), agentic AI, and AI chaining frameworks (e.g., LangChain).

- Collaborate with cross-functional teams and stakeholders to identify AI opportunities and translate them into impactful solutions.
- Added **persistent storage for embeddings** to avoid reprocessing, reducing compute costs by 40% for repeated queries.
- Enhanced model performance through comprehensive data analysis, preprocessing, and feature engineering.
- Leveraged expertise in **Python** (NumPy, TensorFlow, Scikit-Learn) to facilitate advanced machine learning tasks.
- Stay updated with the latest advancements in GenAI and the **Power Platform** ecosystem.
- Design, develop, and implement solutions using Power Apps and Power Automate.
- Collaborate with business stakeholders to gather and understand requirements and translate them into technical solutions.
- Conduct Proof of Concepts (PoCs) and demos to showcase solutions.
- Provide technical support and troubleshooting for Power Platform solutions.
- Utilize insights from our business partners, external market analysis, and your own experience to define, develop, and enhance new and existing solutions.

OCloud SolutionsWyoming, United StatesFull Stack Developer (React)Oct 2020 – June 2022

- Performed statistical analysis to uncover correlations and presented actionable insights to the marketing team, contributing to data-driven decisions on **website optimization** strategies and **targeted marketing campaigns.**
- Utilized **Python** and data analysis libraries to preprocess and analyze the collected data, identifying trends, popular content, potential areas for improvement and implemented **Google Analytics** to track user behavior and monitor performance metrics with the use of **custom events**.
- Led full-stack development of a web application with **React UI**, **MongoDB** backend, JWT auth & private routing. Demonstrated expertise in collaborative coding, version control, full-stack development, and security best practices.
- Utilize **SQL queries** and data mining techniques to extract meaningful insights from large datasets. Conduct **adhoc analysis** to address business questions and present findings to both technical and non-technical audiences.
- Designed and developed a comprehensive Power BI dashboard with integration of DAX functions to calculate drillthrough reports, distribution patterns, and demographic trends, facilitating effective decision-making for public health authorities.
- Developed an application to evaluate fabric quality using metrics like color consistency, dimensions, and stability.
   Utilized Otsu's and Adaptive thresholding, morphological operators, and sliding window algorithms in OpenCV python for advanced image processing.

#### **National University of Computer and Emerging Science**

Technical Lab Assistant

July 2019–September 2020

- Supported research documentation processes, including **organizing datasets**, **recording methodologies**, and conducting literature reviews to inform data context and validate research design.
- Applied statistical models to research data for **predictive insights**, enhancing research outcomes with data-driven projections.

#### **EDUCATION**

## **Bachelor of Computer Science**

2022

National University of Computer and Emerging Sciences (FAST)

#### **CERTIFICATIONS**

- Certified Genai Engineer Genai-training.com LLC 2024
- Certified Prompt Engineer Genai-training.com LLC 2024
- Certified Python Developer Genai-training.com LLC 2024
- Harnessing the Power of Data with Power BI 2024
- Creative Designing in Power BI 2024
- Python for Data Science and Machine Learning 2023