

# MD ASADUZZAMAN

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[LinkedIn](#) | [GitHub](#) | [Portfolio](#)

## Professional Summary

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I am a professional with a background in AI, Data Science, and Telecommunications. Acting as an AI Solution Owner with 4+ years of experience in NLP, LLMs, and Conversational AI. Proven track record in designing AI-driven chatbots, retrieval systems (RAG), and scalable digital solutions. Passionate about optimizing AI applications to drive business impact.

## Skills & Technologies

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### AI & Machine Learning

- LangChain, HuggingFace, IBM Watson, WatsonX, OpenAI, Ollama
- Retrieval-Augmented Generation (RAG), LLM, Knowledge Graph

### Data Science & Engineering

- Pandas, NumPy, Matplotlib, Seaborn
- SQL, Elasticsearch (BM25), Vector Databases (FAISS, Elasticsearch)

### Data Visualization

- Tableau, Kibana, Power BI

### Software Development & Tools

- Python, Confluence, and Jira

## Work History

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### AI Solution Owner - AI Digital Assistant

02/2021 to Current

Nokia – Lisbon, Portugal

AI & Data Science

Full Stack – Conversation Flow Manager (CFM)

### Key Responsibilities & Achievements

- Designed and deployed AI-powered **FAQ chatbots**, using **dynamic prompting** and **RAG-based hybrid search** capabilities with **RRF techniques**, which reduced **support tickets by 20%**.
- Developed intent recognition **prompts achieving 92% accuracy in multi-topic classification**.
- Built a **knowledge driven "Talk to Your Knowledge"** chatbot leveraging RAG systems with hybrid search and **Reciprocal Rank Fusion (RRF)** techniques for optimal chunk extraction and text generation.

- Built a **Text-to-SQL** chatbot that enables users to query features based on **business logic and algorithms**, delivering results aligned with stakeholder requirements and achieving **over 82% accuracy**
- Developed end-to-end **dialogue flow** for Conversational AI bot, using **IBM Watson & Azure OpenAI APIs**.
- Developed **Query Reformulation prompt**, which extracts principal **keywords and filters** out stop words based on business requirements, significantly improving IR with accuracy.
- Created an **AI benchmark testing** framework to **evaluate response** quality against golden standards.
- Implemented a **retrieval grading framework** to enhance search accuracy and minimize AI hallucinations.

## **Network Integration and Databuild Engineer**

**10/2018 to 02/2021**

**Nokia** – Lisbon, Portugal

### **Databuild for SRAN, LTE and 5G :**

- Implemented **network modernization projects**, creating site commissioning File(SCF)
- Analyze the existing rules, change the parameters, and find the solutions for different objects.
- Designed data templates for optimal parameters and created templates for 3G, 4G, and 5G.

### **Network Integration (NI) :**

- In NOC, SWAP support to the Field engineers.
- Check the Test calls for 3G , LTE and 5G using Probo tools .
- Update Plans for alarms into the NetAct and provisioning by the operation manager.

## **Customer Service**

**01/2018 to 09/2018**

**Lycamobile** – Lisbon, Portugal

- Resolved **customer queries** via email, ensuring adherence to SLAs.
- Managed incoming Network connectivity tickets efficiently, ensuring customer satisfaction and maintaining product-related databases.

## **Supervisor**

**02/2015 to 10/2017**

**Subway Hackney Limited** – London, United Kingdom

- Managing Payroll and Schedules
- Give support for the ERP software

## **Technical Support Engineer**

**03/2010 to 04/2013**

**Universal Engineering Company Ltd** – Dhaka, Bangladesh

- Provide remote BTS commissioning support.
- Conducted E1 transmission loop tests and PAT tests.

## **Engineer Intern**

**10/2009 to 01/2010**

**Grameenphone Ltd** – Dhaka, Bangladesh

- Internship at Grameenphone in Transmission Planning. with the Non-Legacy Transport Network with a specialization in Synchronization and Data Communication Networks (DCN).

## Education

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**Master of Science:** Computing **09/2014**  
**Glyndŵr University** - United Kingdom(UK)

**Bachelor of Science:** Electronics and Telecommunication Engineering **03/2010**  
**ATISH DIPANKAR UNIVERSITY OF SCIENCE & TECHNOLOGY** - Dhaka, Bangladesh

## Certifications

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- IBM Data Science Professional Certificate
- Prompt Engineering for ChatGPT
- Building and Evaluating Advanced RAG
- Vector Databases: from Embeddings to Applications

## Projects

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- **AI Agent Chatbot**

A powerful AI chatbot using LangGraph, FastAPI, and Streamlit. Learn to define a FastAPI backend endpoint for processing requests, integrate LangGraph agents with dynamic model selection, and design an intuitive Streamlit UI for seamless user interaction.

- **Retrieval Grader Framework**

Developed a Python AI artifact that uses an LLM-based re-ranking system with explanations to minimize hallucinations in LLM-generated text, which enhances reliability.

## Languages

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- **English:** Fluent (★★★★★)
- **Portuguese:** Intermediate (★★★★☆)
- **German:** Basic (★★☆☆☆)

## Awards & Recognition

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- TSIA 2021 STAR Awards Finalist - Recipient as a team of AI Digital Assistant
- Mobile Networks Quality Awards 2022 Advancing quality as a competitive differentiator - AI Digital Assistant.