Mohammad Tanweer Salah

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SUMMARY

Full Stack Developer with Expertise in Python, Java, .NET Core, and Generative Al

With over 5 years of practical experience and 3.5 years of professional expertise, I specialize in developing scalable web applications using Java and .NET Core. My recent projects include multiple innovative applications of Generative AI, leveraging LangChain and open-source Large Language Models (LLMs) to address diverse use cases.

SKILLS

Generative AI: Open Source LLMs, OpenAI LLM, LangChain, LangChain Agents, LangChain Tool,

LLamaIndex, RAG, Vector Database, GraphDB

Machine Learning: TensorFlow, TensorFlow Lite

Back-End: Python, FastAPI, Java Spring Boot, .Net Core, C#, Java, Rest API, JSON

Front-End: JavaScript, Typescript, Vue.js, React.js, Streamlit, HTML5, CSS3, Adobe XD, Figma

Database: GraphDB, PostgreSQL, SQL, Azure Storage Services **Tools & Methods**: Azure, Docker, Git, GitHub, Azure DevOps, CI/CD.

OS: Linux, Mac, Windows

Professional: Jira, Confluence, Remote Pair-Programming, Teamwork

Soft Skills: Collaboration, Productivity, Creativity, Continuous Learning, Problem Solving, Agile

Methodology, Documentation, Communication skills

PROJECTS

TanGPT - Demo

• A ChatGPT clone built using open-source large language models, LangChain, FastAPI, and Vue.js. The project is deployed with Docker and uses Nginx for proxy management.

YouTube Video and Webpage Summarizer - <u>Demo</u>

A generative Al application that utilizes open-source large language models to summarize lengthy videos and web
pages using the MapReduce method. The application is deployed on Streamlit.

TanSeo (SEO optimizer App) - <u>Demo</u>

 A content generation project that produces SEO-optimized web page content using open-source large language models and a series of SEO-specific prompts.

Translator App- Demo

• A translation application capable of translating multiple languages, built with open-source large language models.

Movie review sentiment analysis App- <u>Demo</u>

• A sentiment analysis application that uses three different models (ANN, RNN, and LSTM) trained on IMDB datasets to analyse movie reviews.

TanFlix

A Netflix clone with movie recommendation system, trained on The Movie Database (TMDB)

Facial Expressions Detection

- Facial Expression Recognition using YOLOv5 and RepVGG (CNN)
- Skills: Python, TensorFlow, NumPy, OpenCV (CV2), Pandas, Seaborn, TensorFlow

Developed an IoT-based Vehicle Accident Detector

- Implemented shock and gyro sensors to accurately detect accidents, ensuring real-time monitoring and response.
- **Emergency Notification System**: Designed and integrated an Android app to send immediate emergency notifications to the driver's contacts, enhancing safety and response times.

Pneumonia type detection from X-Ray scans using Deep CNNs

- CNN was used for classifying Viral pneumonia into COVID/MERS/SARS.
- ResNet50 architecture was implemented to classify Bacterial pneumonia from normal chest X-Ray scans and achieved 94% training accuracy & 94% validation accuracy.

EXPERIENCE

Fraunhofer IPK

Berlin, Germany (On-site)

10/2023 - present

Research Assistant

Project - Catena X

An open data ecosystem for the automotive industry designed to create data chains.

- Developing an application called CE (Circular Economy) Assistant. Targeting use case: Circular economy, specifically addressing End-of-Life (EoL) of vehicles.
- Handling complete end-to-end development:
 - o Frontend development using Vue.js
 - Backend development utilizing Java Spring Boot.
 - DevOps processes including CI/CD pipeline setup, cloud deployment, and monitoring
- Building comprehensive data models for different use cases to ensure accurate and efficient data handling.

Tata Consultancy Services

Delhi, India (On-site)

11/2020 - 03/2023

System Engineer

Project - POS for Visionworks of America

A Optical retail chain with more than 700 stores across United States of America.

- Developed POS and CRM systems, enhancing workflow.
- Developed multiple Azure Function Apps and leveraging serverless computing.
- Designed and developed secure Web APIs and Set up CI/CD pipelines with Azure DevOps.
- Created multiple internal automation tools for increasing efficiency and saving 60 hours / week of manual work.
- Implemented data migration, saving \$300K annually.
- Nominated for the Best Performance Improvement Award.

EDUCATION

MSc, Artificial Intelligence

Universität zu Lübeck, Germany

10/2023 - Present

Bachelor of Engineering, Automobile Engineering

Rajiv Gandhi Proudyogiki Vishwavidyalaya, India

09/2016 - 08/2020

CERTIFICATIONS

- TensorFlow Developer Professional Certification (06/2023) 🔗
- Machine learning Specialisation (05/2023) 🔗
- Artificial Intelligence Fundamentals AI 900 Microsoft Certification (06/2021) 💇
- Infosys Certified Software Programmer (07/2019) -
- Programming in Java Certification (05/2019) 🔗
- Python Developer Certification 🔗
- Azure Fundamentals AZ 900 Microsoft Certification (06/2021) <a href="#section
- Data Fundamentals DP 900 Microsoft Certification (06/2021) -
- IELTS BAND 7 | CEFR LEVEL C1 (03/2022) 🔗