#### **Mohammad Tanzil Alam**

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#### **EDUCATION**

Sept 2021-Aug 2023 Jacobs University, Bremen, Germany MSc in Data Engineering

o Graduated in August 2023.

Sept 2021- Aug 2023 Roche Cooperative study program 100% Scholarship

o Awarded for outstanding academic potential.

Aug 2015- July 2019 Uttarakhand Technical University, Dehradun, India B.Tech Computer Science & Engineering

o Undergraduate in June 2019

o 1st Division Undergraduate (India).

Major Subjects – Data Analytics, Probability, Statistical Modelling, Artificial Intelligence, Machine Learning, Data

Management with Python and SQL.

**WORK EXPERIENCE** 

Feb 2023 – July 2023 Master Thesis, Roche Diagnostic GmbH, Penzberg, Germany

Using Python, designed ETL pipeline and automate the application to compare different reports.

June 2022 – Aug 2022 Summer Intern, Roche Diagnostic GmbH, Penzberg, Germany

Established Cloud Pipeline using AWS for Data Curation, Data Analysis, Data Comparison, etc. between

different reports.

May 2020 – May 2021 Senior Web Developer, Fortress6 Technologies, Kolkata, India

Designed and tested Database with high accuracy level in Typo 3 CMS (Content Management System).

June 2019 – April 2020 Junior Web Application Developer, Fortress6 Technologies, Kolkata, India.

Collaboratively contributed to code, develop and design using Php, HTML & SQL. Facilitated by

documenting the website design workflow using Google Docs.

LANGUAGES English (C1), Urdu (Native), Hindi (C1), German (B1)

<u>SKILLS</u> <u>Technologies</u>: Python, Java, Docker, AWS, Power BI, MySQL, CI/CD Git, Bitbucket, Kanban, HTML, C, C++,

JavaScript, R, Blender 3D, MS Office

<u>Tools</u>: Jupyter Notebook, R Studio, NetBeans, Visual Studio

Operating System: Linux, Windows, Mac

Soft Skills: Communication and Presentation skills, Problem Solving Skills, Technical Leadership, Data-

Driven Decision Making.

### **PROJECTS**

### 1. Master Thesis on Detecting Data Drift in clinical NLP pipeline

- o Developed and automated an application to detect data drift using big data from Surgical Pathological reports.
- Skills and Tools: Machine Learning, Python, NLP, Data Preprocessing, Model Evaluation, Word Embeddings(TF-IDF, Word2Vec), Automation (a simple App), Cosine Similarity, genism, OCR, ETL, Pandas, NLTK, Data Analysis.

## 2. Roche Intern Project on Guideline Digitalization JSON Backend

- o Designed an AWS cloud pipeline to fetch data from Oncology pdf file and perform data curation, data comparison services.
- o Skills and Tools: AWS (S3, Glue, Athena, Redshift, VPC, CloudWatch, EC2) PySpark, SQL, JSON, Apache Parquet, Data Mining.

# 3. University Advance Project on Event Detection by Trilateration Using Nigeria Power Grid

- Researched and conducted time series analysis and data visualization using python library to find any abnormal event occurring in the power grid.
- Skills and Tools: GeoPandas, plotly, matplotlib, scikit-learn, Python, Pandas, Data Visualization, Time Series Analysis, NumPy.

## 4. Image Classification for Medical Diagnosis

- Created a deep learning model to classify medical images (e.g., X-rays, MRI scans) for a specific diagnosis task (e.g., detecting diseases).
- Skills and Tools: Deep Learning, Python, TensorFlow, Keras, Medical Image Analysis.

## **INTERESTS**

Data Analysis, Chess, Meditation.