Mohammad Tanzil Alam

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EDUCATION

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

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

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

Develop, construct, test and maintain Cloud Pipeline architecture 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 Urdu/ Hindi (Native), English (C1), German (B1)

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

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

- Developed an application to detect data drift using big data from Surgical Pathological reports and automate it so that data is collected, cleansed, integrated, and made available for the operation.
- 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

- Designed an AWS cloud pipeline to fetch data from Oncology pdf file, export and transform it into preferred format to 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

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

INTERESTS

Data Analysis, Chess, Meditation.