

Hasan Tanvir Iqbal
hasantanvir@iut-dhaka.edu
LinkedIn — Github — Portfolio

SUMMARY A CS graduate with 3 years of professional experience in research and development with **Machine Learning, Deep Learning** and **Statistical Inference**. Recent projects include large scale solutions based on **Transformers** and **LLMs**. Currently pursuing higher studies in the field of Artificial Intelligence.

WORK EXPERIENCE **Bkash Company Ltd.** April 2021 - Present
ML Engineer, Data Science and Engineering

- **LLM powered App Assistant**
Tested various **LLMs with Graph RAG** to find best suited multi-modal LLM to be integrated as app assistant.
- **Document Information extractor using Transformer**
Trained **Visual Transformer(Vit)** model for specific document types in English and Bangla Language. This enabled document verification and information extraction. Also deployed the model using **Nvidia Triton** server to support scale.
- **Suspicious Customer Behaviour Tracker**
Developed software that detect device change from Device Fingerprint in **real-time** and track for suspicious behaviour patterns. Additionally developed automated analysis tools to detect other types of suspicious customer activities.
- **Business Metrics Predictor**
Developed time-series and baysian prediction model that predicts various business metrics and detects anomalies.

EDUCATION **Islamic University of Technology (IUT)** 2017 – March 2021
BSc in Computer Science and Engineering

- **CGPA:** 3.5 in the scale of 4.00
- Obtained **OIC Scholarship**
- Worked at **IUT SSL Lab** (Supervisor: Prof. Dr. Kamrul Hasan)
- **Thesis:** Experimented with **multi-layer skip connection** and **non-linear activation function** of Image to Image Translation for thesis 'Image to Image Translation With Multi- Scale Generator' and compare the results in **Depth to RGB** image translation domain.

OPEN SOURCE COLLABORATION **AI Safety Camp** January 2024 - April 2024

- Research on developing realistic Operational Design Domain (ODD) for foundational LLM models.
- The goal is to create safer LLMs that are more robust to jailbreak.

TECHNICAL SKILLS

- **Programming** Python, C, C++, Java, Rust, Julia
- **Machine Learning** Pytorch, Tensorflow, Huggingface
- **Database** Oracle, Scala, ScyllaDB
- **Big Data Platform** Apache Spark, HDFS
- **Cloud Platform** AWS, GCP
- **Version Control** Git, Github, GitLab