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ABOUT

I am Md. Ferdaus Hossen, a motivated and detail-oriented individual with a strong passion for continuous learning and personal growth. I enjoy working in dynamic environments, solving challenging problems, and taking initiative in every task. I am eager to apply my skills in AI, Machine Learning, and data-driven solutions to contribute positively to any organization.

EDUCATION

Degree/Certificate	Institute/Board	CGPA/GPA	Year
Bachelor of Science (Honors)	Green University of Bangladesh	2.95 (Current)	2022–Present
Higher Secondary	Jashore	4.50	2020
Secondary	Jashore	4.09	2017

CAREER OBJECTIVE

To obtain a challenging position in the field of Artificial Intelligence and Machine Learning where I can leverage my expertise in NLP, deep learning, and multimodal data analysis to develop practical and high-impact AI solutions. I aim to contribute to optimizing business processes, enhancing employee and organizational performance, and delivering Industry 5.0-aligned intelligent systems, while continuously advancing my technical skills and professional growth in a dynamic, collaborative environment.

TECHNICAL SKILLS

AI & Machine Learning	Supervised & Unsupervised Learning, Deep Learning, Transformer-based NLP, Sentiment & Emotion Recognition, Multimodal Feature Engineering.
Feature Engineering	BERT embeddings, Hybrid Feature Fusion, Word2Vec, GloVe, TF-IDF, POS-tag counts, LIWC/NRC lexicons.
Programming	Python (Primary), HTML, CSS, JavaScript.
Frameworks & Libraries	PyTorch, TensorFlow, Scikit-learn, Streamlit, Pandas, NLTK, Hugging Face Transformers.
Development Tools	Data Mining, Web Scraping, Git, Jupyter Notebook, Google Colab, Microsoft Excel, Model Evaluation & Experiment Tracking, ML Data Visualization.

RESEARCH EXPERIENCE

- **Deep Learning Based Early Prediction of Depression and Suicidal Risk in Bangla Social Media Posts,** Presented at STI 2025.
- **A Transformer-Based Hybrid Framework for Early Detection of Depression and Suicidal Risk from Social Media Data,** submitted to QPAIN 2026.
- **A Retrieval-Grounded and Novelty-Aware Framework for Research Idea Generation Using LLMs,** submitted to QPAIN 2026.
- **A Large Language Model-Driven Reinforcement Learning Framework for Employee Performance Optimization,** submitted to QPAIN 2026.
- **Enhancing Reinforcement Learning Alignment via LLM-Based Interpretation of Human Feedback,** submitted to QPAIN 2026.

TECHNICAL PROJECTS

- **AI-Powered Audio Transcription Platform** — Real-time AI-powered speech-to-text transcription platform using OpenAI Whisper and Gradio, enabling fast, accurate audio transcription from uploads or live recordings. ([GitHub](#))
- **IMDB Sentiment Analyzer** — Deep learning-powered sentiment analysis tool for IMDB movie reviews using LSTM and Transformer models. ([GitHub](#))
- **AI Interview Evaluator** — Intelligent system that evaluates candidates' interview responses using NLP, sentiment, and behavioral analysis. ([GitHub](#))
- **Smart Multimodal AI Chatbot** — An intelligent multimodal chatbot integrating text, image, and contextual understanding using large language models and deep learning techniques for interactive human–AI communication. ([GitHub](#))
- **Echolingo AI Translator** — Multilingual AI translator capable of translating speech and text with contextual understanding and emotion preservation. ([GitHub](#))
- **Hybrid Transformer Models with BiLSTM Attention for Early Mental Health Detection** — Deep learning framework combining Transformer architectures with BiLSTM and attention mechanisms for early detection of depression and suicidal risk from social media text. ([GitHub](#))
- **Fake-or-Truth News Finder** — A machine learning-based tool for detecting misleading and false news using NLP classifiers and feature-based text analysis. ([GitHub](#))
- **Artificial Intelligence Simple Object Detection** — A basic object detection project leveraging classic computer vision and deep learning techniques for identifying and localizing objects in images. ([GitHub](#))

CERTIFICATIONS

Data Entry, Microsoft Excel, Word, Web Research, Data Mining, Data Scraping & File Conversion Tools.

ACHIEVEMENTS

- Regional Finalist, BdApps National Hackathon 2022.
- Presented research on early detection of depression and suicidal risk at STI 2025; certificate received.
- Submitted multiple research papers to QPAIN 2026 on LLM and mental health frameworks.
- Developed open-source projects: IMDB Sentiment Analyzer, Smart Multimodal AI Chatbot, Hybrid Transformer Models.

INTERNSHIP / INDUSTRY EXPERIENCE

- **Intern, Zensoft Lab** — Hands-on experience in analyzing employee performance using ML/DL models and LLM-driven frameworks aligned with Industry 5.0 standards.
- Conducted data preprocessing, feature engineering, and multimodal analysis for employee performance optimization.
- Monitored model, implemented evaluation, and provided actionable insights for intelligent HR decision-making.