

SAZZAD HUSSAIN FARHAAN

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WORK EXPERIENCE

Project Coordinator (AI Data Training)

05/2024 – Present

Genmorphics AI Solutions, Dhaka, Bangladesh

Part-time - Remote

- Boosted model performance by **23%** through the design and validation of over **1,200 engineering-focused prompts**, spanning **mechanical, electrical, and software** domains for LLM training.
- Enhanced training efficiency by **40%** and reduced annotation correction cycles by **25%**, by implementing a scheduling system, refining technical prompts, and introducing performance checkpoints.
- Improved AI output quality and safety by reviewing **350+ instances** of bias and inaccuracies, and strengthened communication pipelines via **weekly stand-ups** and stakeholder alignment initiatives.

Associate BI Analyst

08/2024 – 04/2025

CS Meta Limited, Dhaka, Bangladesh

Full-time - Onsite

- Delivered financial insights, with **3x faster reporting cycles**, by building **Python-based ETL** scripts and **Power BI** dashboards.
- Enhanced stakeholder decision-making, by adoption of **BI tools across 3 departments**, through predictive analysis.
- Streamlined report generation, with a **50% reduction in manual effort**, by designing reusable **CTE Templates** and **SQL** queries.

Associate AI Developer

04/2024 – 10/2024

Web and More Limited, London, United Kingdom

Part-time - Remote

- Achieved **30% faster** image processing, using advanced denoising and **OCR** with **OpenCV** and **Tesseract**.
- Reduced OCR error rates via custom filters and **Python** preprocessing techniques.
- Enabled backend deployment of ML modules by containerising solutions with **Docker**.

Machine Learning Engineer

11/2021 – 02/2024

Creative IT Institute, Dhaka, Bangladesh

Full-time - Onsite

- Trained and mentored over **100 students**, achieving a **90% completion rate**, via hands-on modules in **computer vision, NLP**
- Improved student outcomes, evidenced by **30+ capstone projects** showcased in local hackathons.
- Standardised content across **4 cohorts** using modular approach and public datasets.

PROJECTS

AI Chat Summarizer with Intelligent NLP

[Hosted in Render and Streamlit](#)

Technologies: Google Gemini API, FastAPI, Streamlit, NLTK, scikit-learn, NetworkX, TF-IDF, TextRank Algorithm, Render.com

Developed a full-stack conversational AI application with advanced text summarization capabilities. Implemented **multi-algorithm summarization** using TF-IDF, TextRank, and frequency-based approaches with intelligent fallback mechanisms. Built configurable AI response system with temperature, top-p, and top-k parameters for customizable conversation styles. Deployed production-ready backend on Render.com with comprehensive API endpoints and real-time chat interface.

EquiJob - AI-Driven Bias Detection in Job Descriptions

[Link to Case Study](#)

Technologies: Word2Vec, GloVe, BERT, GPT, EDA, Selenium, BeautifulSoup

Built a dataset of **20,000** Job Descriptions out of **50,000** from **30 countries**. Collaborated in ETL processes to build a tool to **detect and analyse gender-biased terms** in job descriptions and generate **gender-neutral JDs** using NLP techniques.

Early Detection and Diagnosis of Alzheimer's Disease

[Open in Hugging Face](#)

Technologies: Nibabel, OpenCV, Scikit-Image, Keras, TensorFlow, PyTorch, CNN Transfer Learning, DeepChecks, Docker, FastAPI

Developed a CNN-based model for early detection of Alzheimer's disease using **6,400 MRI images**. Achieved an accuracy of **99.22%**. **Deployed as a REST API** using Docker and Streamlit, hosted on Hugging Face Spaces.

EDUCATION

Bachelor of Science in Computer Science and Engineering

2016 - 2021

University of Liberal Arts Bangladesh (ULAB)

CGPA: 3.33 on a scale of 4.00

Thesis + Project: Natural Language Processing based Quality LMS for Students Evaluation and Engagement Metrics Calculation

TECHNICAL COMPETENCIES

Programming Languages: Python, SQL, JavaScript

Machine Learning & Deep Learning: Supervised learning, Unsupervised learning, CNNs, RNNs, LSTM, Transformer Architectures, Model training, Model evaluation, Parameter tuning, Multimodal learning, Attention mechanisms, Transfer learning

Computer Vision: Edge detection, Histogram equalization, Morphological operations, Filtering techniques, Image denoising, Object detection, Image segmentation, **Optical character recognition (OCR)**

Libraries and Frameworks: TensorFlow, Keras, PyTorch, DLTK, OpenCV, Scikit-learn, Scikit-image, NumPy, SciPy, Tesseract OCR, Seaborn, Streamlit, LangChain, SpaCy, FastAI, React Native, Expo CLI, Hugging Face Transformers, librosa, torchaudio, Fairseq

Tools & Platforms: Git, GitHub, Jupyter Notebooks, HuggingFace, Docker, AWS Sagemaker, Roboflow, Data Annotation, LaTeX, SPSS, Power BI, BeautifulSoup, Selenium

FELLOWSHIP

Data Scientist <i>Fellowship.AI, California, United States</i> <ul style="list-style-type: none">Reduced ETL runtimes by 40% for NLP pipelines with large transformer models.Enhanced ML interpretability via modular code design and stakeholder documentation.Enabled API-based model access using RESTful endpoints and Hugging Face integration.	10/2023 – 12/2023 <i>Fellowship - Remote</i>
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INTERNSHIP

Machine Learning Engineer <i>Omdena, Toronto, Canada</i> <ul style="list-style-type: none">Cut model training time by 2 weeks via structured data curation from 50,000+ web pages using web scraping.Deployed 3 ML models with FastAPI and demoed with Streamlit.Improved model accuracy by +5% using augmentation and fine-tuning with PyTorch and TensorFlow.	09/2023 – 03/2024 <i>Internship - Remote</i>
Undergraduate Teaching Assistant <i>University of Liberal Arts Bangladesh</i> <ul style="list-style-type: none">Tutored over 150 students across Calculus, Programming, and Differentials, achieving a 15% average grade improvement.Boosted student engagement and retention by offering 1-on-1 mentoring and tailored academic support.Supported faculty in streamlining course delivery by assisting with grading, lab supervision, and curriculum coordination.Contributed to curriculum-aligned research by facilitating student-led projects on algorithmic thinking and foundational subjects.	11/2017 – 04/2019 <i>Part-time – Onsite</i>

ACADEMIC AWARDS

Vice Chancellor’s Honors List Scholarship, Summer 2016
Awarded Merit based Scholarship worth 3,500 USD from the University of Liberal Arts Bangladesh

LEADERSHIP AWARDS

The Gold Standard Awardee, The Duke of Edinburgh’s International Award 2025: Awarded by the **British High Commissioner** for achieving the Gold Standard in skill, physical recreation, social welfare, and adventurous activities.

The Silver Standard Awardee, The Duke of Edinburgh’s International Award 2024: Silver Standard achieved in skill, physical recreation, social welfare, and adventurous activities.

The Bronze Standard Awardee, The Duke of Edinburgh’s International Award 2022: Achieved Bronze Standard in skill, physical recreation, social welfare, and adventurous activities.

Lead Volunteer, IJCCI 2019: Led a team of more than 50 volunteers to successfully organize the International Joint Conference on Computational Intelligence 2019.

Peer Mentor Award, ULAB Student Affairs Office 2019: Recognised for mentoring first-year students, contributing to their academic progress and successful transition into university life.

Lead Publication, Team SPARK 2019 – IEEE Computer Society Bangladesh Chapter: Recognised with a Certificate of Appreciation for valuable contributions as the Publication Lead.

Volunteer, IEEE WIE International Leadership Summit 2018: Received a Certificate of Appreciation for leading as a volunteer in the Leadership Summit organised by IEEE WIE and the IEEE Bangladesh Section.

TECHNICAL AWARDS

Top 40, NASA Space Apps Challenge 2018, Regional Round: Project - Sustainable Multi-Source Energy Harvesting System: Solar Tracking and Raindrop Kinetic Conversion in a Hybrid Photovoltaic Array.

Champion, ULAB Techfest 2019, Idea Contest: Project - AI Integrated Wellness Tracker: A comprehensive mobile application for personalized nutritional monitoring, calorie balance, and exercise optimization.

1st Runner-Up, ULAB Techfest 2019, Poster Display: Project - Acoustic Energy Harvesting in Urban Environments: Converting Noise Pollution into Sustainable Electric Power.

CO-CURRICULAR EXPERIENCE

Chairperson, IEEE CS ULAB Student Branch Chapter 04/2019 – 08/2020 Founding Chairperson of the Student Branch Chapter. Led the executive team for 25 collaborative and internal events.	Secretary, IEEE ULAB Student Branch Chapter 07/2017 – 04/2018 Delegated activities from the Regional Section to the Student Branch. Increased membership from 10 to 70+ members.
Chairperson, IEEE ULAB Student Branch 03/2018 – 04/2019 Prepared the Branch Annual Plan. Organized and coordinated more than 20 flagship and international events for the student branch. Increased membership drive to 250%.	Lead Publication, Team Spark, IEEE CS Bangladesh Chapter 07/2019 – 08/2020 Facilitated collaboration among 23 IEEE-affiliated universities in Bangladesh, fostering research groups for professional and student members to bridge the industry-academia gap.