PERSONAL INFORMATION

Sazzad Hussain Farhaan

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Sex: Male | Date of birth: 21/08/1997 | Nationality: Bangladeshi

WORK EXPERIENCE

10/2025 – Present

Machine Learning Instructor

Stamford University Bangladesh, Dhaka, Bangladesh (Part-time – Onsite)

- Designing and **delivering Machine Learning curriculum** for undergrad students.
- Mentor students on practical **research-oriented projects**, fostering skills in model development and deployment.

08/2024 – 09/2025

Associate Business Intelligence Analyst

CS Meta Limited, Dhaka, Bangladesh (Full-time – Onsite)

- **Trained 10-member analytics team** and advised on LLM-based business strategies.
- **Built ETL pipelines** with Python (Pandas, SQLAlchemy) and Airflow, reducing data refresh time by 66% for Power BI dashboards.
- Deployed time-series forecasting (Prophet, Scikit-Learn), **increasing BI adoption from 25% to 75% across departments.**

05/2024 – 04/2025

Project Coordinator (AI Data Training)

Genmorphics AI Solutions, Dhaka, Bangladesh (Part-time – Remote)

- **Designed 1,200+ engineering prompts** for LLM training, improving model performance by 23%.
- Enhanced training efficiency by 40% via scheduling, refined prompts, and checkpoints.

04/2024 – 10/2024

Associate AI Developer

Web and More Limited, London, United Kingdom (Part-time – Remote)

- **Improved image processing by 30% using** OpenCV for denoising and OCR.
- **Deployed ML modules with Docker**, reducing OCR errors through Python preprocessing.

11/2021 – 02/2024

Machine Learning Instructor

Creative IT Institute, Dhaka, Bangladesh (Full-time – Onsite)

- **Trained 100+ students** in AI/ML (90% completion rate), mentoring 30+ capstone projects.
- Built AWS-based ML environments (Docker, EC2, MLflow) for MLOps training.
- Delivered curriculum on Transformers and Computer Vision with personalized mentorship.

EDUCATION & TRAINING

01/2016 - 01/2021

BSc in Computer Science and Engineering   EQF level 6

University of Liberal Arts Bangladesh (ULAB), Dhaka (Bangladesh)

Project: Natural Language Processing-based Quality LMS for Students' Evaluation and Engagement Metrics Calculation

- **Vice Chancellor's Honours List Scholarship**, Summer 2016.
- Awarded a **merit-based Scholarship worth 3,500 USD** from the University of Liberal Arts Bangladesh.
- The **Gold Standard Awardee**, The Duke of Edinburgh's International Award 2025.

03/2025 - Ongoing

AI-Based Software Development with Python (In Progress)

Innovative Skills Bangladesh, Dhaka (Bangladesh)

- **Developing skills in Python and Django** to build full-stack web applications, including RESTful APIs and AI API integration for projects like CRM systems.
- **Learning database management** (PostgreSQL), unit testing with Pytest, and deployment with Docker and AWS EC2 to create scalable, portfolio-ready solutions.

FELLOWSHIP & INTERNSHIPS

09/2023 – 03/2024 — Machine Learning Engineer

Omdena, Toronto, Canada (Remote)

- **Utilised web scraping** (Selenium, Beautiful Soup) and comprehensive EDA methodologies.
- **Applied CNN, RNN, LSTM, Transformers, and ResNet architectures** for computer vision solutions, recognised as a top collaborator

10/2023 – 12/2023 — Data Scientist

Fellowship.AI, San Francisco, California, US (Remote)

- **Among Top 4 Contributors** whom collaboratively integrated **Open-Source Large Action Models** from Hugging Face into a hybrid system to develop a Travel Agent using **Amadeus API.**
- **Development and testing of a robust Large-Action Model pipeline**, gaining foundational knowledge in AI, and NLP through practical applications of different Transformer Architectures, **ETL pipelines**, **FastAI**, **LangChain**, and **spaCy**, and communicating project updates regularly as a **Scrum Update**.

11/2017 - 04/2019 — Undergraduate Teaching Assistant

University of Liberal Arts Bangladesh (Part-time – Onsite)

- **Tutored over 150 students** across Calculus, Programming, and Differentials. Boosting student engagement and retention by offering 1-on-1 mentoring and tailored academic support.
- **Supported faculty** with grading, labs, and student projects on foundational courses.

RESEARCH EXPERIENCE

Peer-Reviewed Conference Proceedings (Published)

1. **2024 | Farhaan, S.H.**, Hasan, M.M., Ghani, F.M., Mansoor, N. "Enhancing Student Engagement and Performance Evaluation: An Integrated Approach for Quality Learning Management System." *Proceedings of World Conference on Information Systems for Business Management (ISBM 2023)*. Lecture Notes in Networks and Systems, vol 833. Springer, Singapore.

2. **2024 |** Prodhan, M.S., Diip, N.S., Akter, S., **Farhaan, S.H.**, Mansoor, N. "Advancing Fish Species Identification in Bangladesh: Deep Learning Approaches for Accurate Freshwater Fish Recognition." *Proceedings of World Conference on Information Systems for Business Management (ISBM 2023)*. Lecture Notes in Networks and Systems, vol 834. Springer, Singapore.

Book Chapters (Accepted - In Press)

3. **2025 | Farhaan, S.H.**, Alam, N.T., Das, M., Shoshy, S.A. "A Theoretical Framework for Multi-Modal AI in Longitudinal Prediction of Radiotherapy Outcomes." *BIM2025 Proceedings*. Taylor and Francis Books. [Accepted]

4. **2025 |** Rabby, F., Rahman, M.M., Das, R., Hossain, M.H., Samir, R.A., **Farhaan, S.H.** "Early-Stage Coronary Artery Disease Prediction Using Coronary Angiogram for Stenosis Detection in Low-Resource Settings." *BIM2025 Proceedings*. Taylor and Francis Books. [Accepted]

5. **2025 | Farhaan, S.H.**, Himel, T.H., Kaiser, A., Ali, M.N. "Harnessing Social Media to Advance Social Entrepreneurship in Bangladesh: A Qualitative Study." *ISBM2025 Proceedings*. Smart Innovation, Systems and Technologies, Springer. [Accepted]

Conference Papers (Under Review)

6. **2025 | Farhaan, S.H.** "Theoretical Framework for AI-Enhanced Bioimpedance Spectroscopy in Early Tumour Detection." *BECITHCON2025*. [Under Review]

7. **2025 | Farhaan, S.H.** "Attention-Guided Segmentation with Progressive Learning for Smartphone-Based Oral Cancer Screening in Resource-Constrained Settings." *BECITHCON2025*. [Under Review]

8. **2025 | Farhaan, S.H.** "Regret-Bounded Metareasoning for LLM Test-Time Compute: A Unified Framework with VoI-Guided Stopping and Adaptive Budgets." *ICCITconf2025*. [Under Review]

9. **2025 | Farhaan, S.H.** "Guided Inference Networks: A Formal Framework for Intellectual Stimulation and Human Reasoning in AI." *ICCITconf2025*. [Under Review]

10. **2025 | Farhaan, S.H.** "Minimal Hallucination via Contracts & Sanity Checks (MiHaCo): A Formal Framework with Provable Bounds." *RAAICON2025*. [Under Review]

11. **2025 | Farhaan, S.H.** "A Formal Operator-Theoretic Framework for Interpretable Quantum Machine Learning." *SPICSCON2025*. [Under Review]

RESEARCH & TECH SKILLS

Language and Libraries:
- Python, JavaScript, SQL
- TensorFlow, Keras, PyTorch, DLTK, OpenCV, Scikit-learn, NumPy, SciPy, Tesseract OCR, Seaborn, SpaCy, Hugging Face Transformers, Streamlit, FastAPI, LangChain, n8n, CrewAI, React Native, Expo CLI.

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

CO-CURRICULAR EXPERIENCE

04/2019 – 08/2020

Chairperson, IEEE CS ULAB SB Chapter

Founding Chairperson of the Student Branch Chapter. Led the executive team for 25 collaborative and internal events for the student community.

07/2019 – 08/2020

Lead Publication, Team Spark, IEEE CS BDC

Facilitated collaboration among 23 IEEE-affiliated universities in Bangladesh, fostering research groups for professional and student members to bridge the industry-academia gap.

04/2018 – 04/2019

Chairperson, IEEE ULAB Student Branch

Preparing the Branch Annual Plan. Organized and coordinated more than 20 flagship and international events for the student branch. Increased membership drive to 250%

08/2017 – 04/2018

Secretary, IEEE CS ULAB SB Chapter

Delegate activities from Regional Section to Student Branch. Increased membership from 10 to 70+ members.

07/2016 – 08/2017

Treasurer, IEEE ULAB Student Branch

Keeping records of accounts. Coordinated in preparing event budget plans. Negotiated and coordinated with event sponsors.

HONOUR AND AWARD

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.

REFERENCE

Nafees Mansoor, PhD
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Associate Professor,
Department of Computer Science and Engineering,
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