

Md. Ataulha

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EDUCATION

Shahjalal University of Science and Technology <i>M.Eng. in Computer Science and Engineering</i>	Oct 2025 – Ongoing
Shahjalal University of Science and Technology <i>B.Sc. in Computer Science and Engineering</i>	Feb 2019 – Feb 2024 <i>CGPA: 3.74/4.00</i>
Notre Dame College, Dhaka <i>Higher Secondary Certificate</i>	Jun 2016 – Jan 2018 <i>GPA: 5.00/5.00 (Scholarship)</i>
Shamsul Hoque Khan School and College, Dhaka <i>Secondary School Certificate</i>	Jan 2009 – Feb 2016 <i>GPA: 5.00/5.00</i>

WORK EXPERIENCE

Lecturer, Department of CSE — Green University of Bangladesh	Jan 2025 – Present
<ul style="list-style-type: none">– Teaching Machine Learning, Data Mining, Object-Oriented Programming, Operating Systems, Integrated Design Project, and Computational Thinking.– Courses: CSE 411/412, CSE 435/436, CSE 406, CSE 310, CSE 201/202, CSE 100.– Co-supervising 10+ undergraduate thesis groups on NLP, Speech Processing, and LLM evaluation.– Advising project teams on applied AI, including development of a medical image diagnosis system.	
AI Engineer — Synesis IT PLC	Mar 2024 – Feb 2025
<ul style="list-style-type: none">– Designed AI voicebot for Bangladesh Election Commission (Project 105).– Enhanced Bangla-English ASR for OOV word handling and speaker diarization (Pyannote).– Built Azure-hosted MLM and LLM-based conversational chatbots.– Integrated real-time Bangla-English closed captioning using ASR.– Contributed to SIT Convay denoiser improvements for speech quality enhancement.	

RESEARCH EXPERIENCE

Low-Resource Text-to-Speech Synthesis (Thesis)

- Created a 15+ hour Sylheti Nagri speech corpus under Prof. Dr. M. Shahidur Rahman.
- Implemented CVAE-based VITS-TTS model for low-resource TTS synthesis.

Low-Resource Machine Translation

- Implemented Transformer and Seq2Seq+LSTM models for Hajong ↔ Bangla MT.

Air Quality Index Forecasting

- Supervised Meta Prophet-based AQI forecasting with daily predictions using time-series data.

PUBLICATIONS

1. Md Shahidul Islam, Pabel Shahrear, Goutam Saha, **Md Ataulha**, and M. Shahidur Rahman. *Mathematical Analysis and Prediction of Future Outbreak of Dengue on Time-Varying Contact Rates Using a Machine Learning Approach*. **Computers in Biology and Medicine**, Elsevier, 2024. DOI: 10.1016/j.combiomed.2024.108707
2. **Md Ataulha**, Mushfiqur Rahman, and M. Shahidur Rahman. *PakhiderChobi: A Comprehensive Dataset for Real-Time Detection of Bangladeshi Birds*. ICCIT 2023, IEEE. DOI: 10.1109/ICCIT60459.2023.10441421

3. **Md Ataulha**, Soumik Paul Jisun, Ishrat Jahan, and Mushfiqur Rahman. *BanFish: A Dataset for Classifying Common Bangladeshi Fish Species*. ICEEICT 2024, IEEE. DOI: 10.1109/ICEEICT62016.2024.10534462
4. **Md Ataulha**, Mahedi Hassan Rabby, Mushfiqur Rahman, and Tahsina Bintay Azam. *Bengali Document Layout Analysis with Detectron2*. arXiv preprint, 2023. arXiv:2308.13769
5. Md. Hasibul Hasan, Sourav Podder, Syed Abdullah, Saiful Azad, Saurav Chandra Das, and **Md Ataulha**. *D-D3N: Dropout-Regularized Deep Neural Networks for Android Malware Detection*. 4th IEEE International Conference on Robotics, Automation, Artificial-Intelligence and Internet-of-Things.
6. Md Faisal Hasan, Mst Rokshanara Toma, **Md Ataulha**, Sharifur Rahman, and M. Shahidur Rahman. *CXR-Next: An Explainable Multi-Class Deep Learning Framework for Thoracic Disease Classification from Chest X-Rays*. IDAA 2025.
7. Md. Muzahidul Islam, **Md Ataulha**, Sharifur Rahman, and M. Shahidur Rahman. *Enhancing Code Synthesis with Bangla Instructions via Fine-Tuned Gemma-3*. IDAA 2025.
8. Md. Naimul Haque, Mostahid Hasan Fahim, M. Reza Selim, Md. Minhajul Haque, Md. Fuad Al Amin, **Md Ataulha**, and M. Shahidur Rahman. *Evaluating and Enhancing Large Language Models for Islamic Question Answering*. ICCIT 2025.
9. Jahidul Islam, **Md Ataulha**, and Saiful Azad. *PyBangla at BLP-2025 Task 2: Enhancing Bangla-to-Python Code Generation with Iterative Self-Correction and Multilingual Agents*. IJCNLP-AACL 2025.
10. Adnan Sami Pavel, Sraboni Akhter, Asha Mony, **Md Ataulha**, and Muhammad Aminur Rahaman. *Structured Prompting and a Heterogeneous LLM Multi-Agent Framework for Financial Sentiment Analysis*. IEEE i-COSTE 2025.

FEATURED PROJECTS

StarGaze BD — ML, CNN, Flask, JavaScript, Streamlit	GitHub
<ul style="list-style-type: none"> – Web app using ML/DL to identify famous Bangladeshi personalities from photos. – Led full-stack development excluding data collection. 	
Freshman Utilities — Java, Firebase, Google Directions API	GitHub
<ul style="list-style-type: none"> – Android app to facilitate campus navigation and info sharing for freshmen. – Implemented signup, verification, profile management, FAQ, map navigation, and media uploads. 	
CourseTrackr — Java, Servlet, JSP, MySQL	GitHub
<ul style="list-style-type: none"> – Web-based course management system with admin, teacher, and student roles. – Implemented course registration, listing, and management modules. 	
QuesTek Pro — Java, JavaFX, Text Files	GitHub
<ul style="list-style-type: none"> – Desktop quiz application with admin verification and CSV result export. 	
US8K-Audio-Clf — RNN, MFCC	GitHub
<ul style="list-style-type: none"> – RNN+MFCC audio classification on UrbanSound8k dataset. 	

TECHNICAL SKILLS

Languages: Python, C/C++, Java, JavaScript, SQL

Frameworks: PyTorch, TensorFlow, FastAPI, React, Android

Tools: Git, Linux, Azure, Firebase, Pandas, Scikit-learn

Soft Skills: Project Management, Time Management

ACHIEVEMENTS

- Kaggle Notebook Expert (1×). Kaggle Profile
- Top 6% in DL Sprint 3.0, BUET CSE Fest 2024.
- Top 10% in DL Sprint 2.0, BUET CSE Fest 2023.
- Top 28% in Bengali.AI Speech Recognition Competition.
- Awarded General Grade Government Scholarship for HSC Excellence.

EXTRACURRICULAR ACTIVITIES

- Reviewer for ICCIT 2024, ICCIT 2025, ICECTE 2026.
- Co-supervising 5+ undergraduate thesis teams on Deepfake Speech, LLM Math Solving, Multi-modal Sentiment, and Nostalgia Analysis.
- Assisting 1 Doctoral-by-Research team on Speech-to-Speech Translation.
- Mentoring 3+ undergraduates on TTS, LLM Evaluation, and Low-Resource NMT.
- Mentored 2+ undergraduate teams on regional audio classification and ethnic language TTS projects.
- Participated in ICT Ministry-sponsored training on UE4-based mobile game and app development.
- Co-hosted DL Enigma 1.0 Competition, SUST CSE Carnival 2024.

REFERENCES

Dr. Mohammad Shahidur Rahman

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Relation: Thesis Supervisor and Mentor

Dr. Mohammad Forhad Rabbi

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