Md. Ayon Mia

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Karamtola, Ward No-42, Gazipur City, Gazipur

EDUCATION

- **Chittagong University of Engineering & Technology**   *Feb 2019 - June 2024*
  Bachelor of Science   Chattogram, Bangladesh

  ◦ GPA: 3.83 (Honors)/4.00 (7th position)

  ◦ Coursework: OOP, DBMS, OS, Computer Network, Computer Architecture, System Design and Analysis, Compiler Design, AI, ML, etc.

  ◦ **Supervisor:** Dr. Muhammad Ibrahim Khan

  ◦ **Thesis:** *Code-Mixed Romanized Bengali to English Translation with Sequence-to-Sequence Deep Learning Model*

- **Rajuk Uttara Model College**   *2018*
  Higher School Certificate   Dhaka, Bangladesh
  ◦ Grade: 5.00/5.00

- **Uttara High School & College**   *2016*
  Secondary School Certificate   Dhaka, Bangladesh
  ◦ Grade: 5.00/5.00

RESEARCH INTEREST

Natural Language Processing (NLP), large Language Models (LLMs), Multimodal Learning, Machine Learning (ML), Deep Learning (DL) and Low Resource Language

EXPERIENCE

- **Dhaka International University[⊕]**   *Jul 2024 - Present*
  Lecturer at Dept. of Computer Science and Engineering   Dhaka, Bangladesh
  ◦ Conducting undergraduate level courses in Computer Science and Engineering
  ◦ Mentoring students in academic and research activities

- **Spectrum Engineering Consortium Ltd [⊕]**   *Sep 2023 - Oct 2023*
  Software Engineer Intern   Dhaka, Bangladesh
  ◦ Developed an algorithm for vehicle scheduling
  ◦ Created backend server with proper database schemes
  ◦ Achieved good output from the system
  ◦ Successfully implemented UI using MERN stack

PROJECTS

- **CUET Hall Service: Hall management system**   *Sep 2023 - Jan 2024*
  Tools: Laravel, MySQL, Bootstrap, CSS, PHP etc.   [⌂]
  ◦ Architected three-panel system (Admin, Student, Service Provider) using Laravel for streamlined hall service management
  ◦ Implemented comprehensive admin panel with user management and request approval workflow features
  ◦ Developed student portal for service requests with priority levels and real-time status tracking notifications
  ◦ Created service provider interface with task management and automated report generation capabilities

- **T20 Score Predictor: A cricket score prediction system**   *Oct 2022 - Jan 2023*
  Tools: Python, NumPy, Pandas, Matplotlib, XGBoost, Flask, HTML/CSS etc.   [⌂]
  ◦ Built interactive web interface using Flask and implemented XGBoost regression model for cricket score predictions
  ◦ Designed feature engineering pipeline and created user-friendly interface for real-time score forecasting

- **Fruit And Vegetable Recognition: A CNN-based classification system** *Oct 2022 - Jan 2023*
  Tools: Python, TensorFlow, VGG-19 etc. [⦿]
  ◦ Implemented fine-tuned VGG-19 architecture achieving 94% classification accuracy across 136 classes
  ◦ Developed robust image preprocessing pipeline and optimized model parameters for improved performance

- **NOKSHA: E-commerce platform for clothing** *May 2022 - Sep 2022*
  Tools: MongoDB, Express.js, React.js, Node.js [⦿]
  ◦ Built full-stack e-commerce platform with user authentication and profile management system
  ◦ Implemented responsive product catalog with search, filtering and shopping cart features

- **Electricity Billing System: Utility management application** *Jan 2021 - Feb 2021*
  Tools: Java, Java Swing etc. [⦿]
  ◦ Developed comprehensive billing calculation system
  ◦ Created automated billing generation based on consumption data

PUBLICATIONS C=CONFERENCE, J=JOURNAL, W=WORKSHOP

[W.3] **Golden_Duck at #SMM4H 2024: A Transformer-based Approach to Social Media Text Classification**
M.A. Mia, M. Yahan, H. Murad, M.I. Khan
In the 9th Social Media Mining for Health Applications (SMM4H) Workshop at ACL 2024

[W.2] **EmptyMind at BLP-2023 Task 1: A Transformer-based Hierarchical-BERT Model for Bangla Violence-Inciting Text Detection**
U Das, K Fatema, MA Mia, M Yahan, MS Mowla, MDF Ullah, A Sarker, H Murad
In Bangla Language Processing(BLP) Workshop at EMNLP 2023

[W.1] **EmptyMind at BLP-2023 Task 2: Sentiment Analysis of Bangla Social Media Posts using Transformer-Based Models**
K Fatema, U Das, MA Mia, MS Mowla, M Yahan, M.F. Ullah, A Sarker, H Murad
In Bangla Language Processing(BLP) Workshop at EMNLP 2023

[C.1] **Enhanced Semantic Relatedness Prediction using XLM-RoBERTa and CNNs with K-Fold Cross-Validation**
M.A. Mia, F.S. Tamim, Z.S. Taheri
Accepted at ICDMIS. In press (Springer) **[Preprint]**

UNDER REVIEW PAPERS C=CONFERENCE, J=JOURNAL, W=WORKSHOP

[W] **KCRL at DravidianLangTech NAACL 2025: Multi-View Feature Fusion with XLM-R for Tamil Political Sentiment Analysis**
M.A. Mia, F. Haq, M.T.A. Shawon, G.S.M. Mursalin, M.I. Khan
In The Fifth Workshop on Speech and Language Technologies for Dravidian Languages at NAACL 2025
[Preprint]

[W] **KCRL@DravidianLangTech NAACL2025: Multi-Pooling Feature Fusion with XLM-RoBERTa for Malayalam Fake News Detection and Classification**
F. Haq, M.T.A. Shawon, M.A. Mia, G.S.M. Mursalin, M.I. Khan
In The Fifth Workshop on Speech and Language Technologies for Dravidian Languages at NAACL 2025
[Preprint]

[J] **Triple-Pooling Feature Fusion with Explainable AI for E-Commerce Review Analysis: A Low-Resource Language Perspective**
M.A. Mia, A. Rahman, G.S.M. Mursalin, M.I. Khan, I.H. Sarker **[Preprint]**

[J] **Code-Mixed Language Translation: An Integrated Framework with Enhanced Preprocessing and N-gram Optimization for Cross-Lingual Communication**
M.A. Mia, M. Fahim, G.S.M. Mursalin, M.J.I. Basher, H. Murad, M.R. Islam, M.I. Khan, I.H. Sarker **[Preprint]**

SKILLS

- **Programming Languages:** Python, C, Java, C++
- **Libraries & Frameworks:** NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn, Tensorflow, Pytorch, Flask
- **Version Control:** Git
- **Database Systems:** MySQL
- **Problem Solving:** Solved 800+ problems (Codeforces, HackerRank, AtCoder, etc.)
- **Tools & Software:** MS Word, PowerPoint, Microsoft Excel

HONORS AND AWARDS

- **Best paper award** *Dec 2023*
  Association for Computational Linguistics [🌐]
  ○ Title: *EmptyMind at BLP-2023 Task 1: A Transformer-based Hierarchical-BERT Model for Bangla Violence-Inciting Text Detection*

- **Technical Scholarship [Funded my undergraduate studies]** *2019 - 2024*
  Chittagong University of Engineering and Technology [🌐]
- **1st at FakeDetect-Malayalam, detecting fake news in Malayalam news articles across five categories** *Nov 2024*
  DravidianLangTech-2025, NAACL 2025 [🌐]
- **2nd at Political Multiclass Sentiment Analysis of Tamil X (Twitter) Comments** *Nov 2024*
  DravidianLangTech-2025, NAACL 2025 [🌐]
- **6th at Fake News Detection in Dravidian Languages: Classify social media posts into original or fake** *Nov 2024*
  DravidianLangTech-2025, NAACL 2025 [🌐]
- **5th in Marathi Subtask at SemEval 2024 Task 1: Semantic Textual Relatedness (STR)** *Sep 2023*
  The 18th International Workshop on Semantic Evaluation, NAACL 2024 [🌐]
- **7th in Telugu Subtask at SemEval 2024 Task 1: Semantic Textual Relatedness (STR)** *Sep 2023*
  The 18th International Workshop on Semantic Evaluation, NAACL 2024 [🌐]
- **17th in English Subtask at SemEval 2024 Task 1: Semantic Textual Relatedness (STR)** *Sep 2023*
  The 18th International Workshop on Semantic Evaluation, NAACL 2024 [🌐]
- **9th at BLP Shared Task 1: Violence Inciting Text Detection (VITD)** *Aug 2023*
  Bangla Language Processing(BLP) Workshop at EMNLP 2023 [🌐]
- **7th at BLP Shared Task 2: Sentiment Analysis of Bangla Social Media Posts** *Aug 2023*
  Bangla Language Processing(BLP) Workshop at EMNLP 2023 [🌐]
- **1st at Sentiment Analysis of Code-Mixed Text CLBLP 2023 (Task 2)** *Feb 2023*
  International Workshop on Computational Linguistics and Bangla Language Processing (CLBLP 2023) [🌐]
- **6th at Multimodal Sentiment Analysis CLBLP 2023 (Task 1)** *Feb 2023*
  International Workshop on Computational Linguistics and Bangla Language Processing (CLBLP 2023) [🌐]

VOLUNTEER EXPERIENCE

- **Adviser** *2024 - Present*
  DIU Film & Photography Club
  ○ Guide students in organizing photography exhibitions and film festivals
  ○ Mentor club members in developing their creative and technical skills

- **Research Advisor** *2024 - Present*
  Khan Computational Research Lab (KCRL)
  ○ Mentor undergraduate students in thesis research and academic writing
  ○ Guide research methodologies and technical implementations

- **Financial Secretary** *2022 - 2023*
  RAJUK Ex- Students' Association (RESA), CUET
  ○ Managed financial operations and budget allocation for association activities
  ○ Maintained transparent financial records and coordinated fundraising initiatives

CERTIFICATIONS

- **Python Matplotlib** by Great Learning Academy *Nov 2023*
- **Data Visualization** by kaggle *Nov 2023*
- **Pandas** by kaggle *Nov 2023*
- **Neural Networks and Deep Learning** by DeepLearning.AI *Oct 2023*

ADDITIONAL INFORMATION

Languages: Bengali (Native), English (Professional Working Proficiency)
Interests: Exploring new things, Reading research papers & blogs, Listening songs, Watching Movies

REFERENCES

1. **Dr. Iqbal H. Sarker**
   Post Doctoral Research Fellow, Centre for Securing Digital Futures
   Edith Cowan University
   Email: m.sarker@ecu.edu.au

2. **Prof. Dr. Muhammad Ibrahim Khan**
   Professor, Department of Computer Science & Technology
   Chittagong University of Engineering & Technology
   Email: muhammad_ikhan@cuet.ac.bd