

Mehedi Hasan Bijoy

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[LinkedIn](#) • [GitHub](#) • [Google Scholar](#) • [Portfolio](#)

Experience

Jan 23 - Sep 23 **Lecturer**

Department of CSE, Bangladesh University of Business and Technology

Courses:

- CSE103 - Discrete Mathematics
- CSE111 & CSE112 - Structured Programming Language and Lab
- CSE121 & CSE122 - Object Oriented Programming Language and Lab
- CSE231 & CSE232 - Data Structures and Lab
- CSE467 - Pattern Recognition

Mar 22 - Jun 23 **Research Assistant (NLP)**

Institute for Advanced Research, United International University

Outcomes:

- DPCSpell: A Denoising Transformer-based Detector-Purificator-Corrector Framework for Spelling Error Correction of Bangla and Resource-Scarce Indic Languages
- Panini: A Transformer Based Grammatical Error Correction Method for Bangla
- Advancing Bangla Punctuation Restoration by a Monolingual Transformer-based Method and a Large-Scale Corpus

Feb 22 - Jan 23 **Lab Instructor**

Department of Electrical & Computer Engineering, North South University

Courses:

- CSE115L - Programming Language I Lab
- CSE225L - Data Structures and Algorithms Lab

Oct 20 - Sep 21 **Teaching Assistant**

Department of Mathematics & Physics, North South University

Course: MAT361 - Probability & Statistics

Academic Service

- Reviewer, Bangla Language Processing (BLP) Workshop at EMNLP 2023.

Academic Credential

- M.Sc. in Computer, Communication and Information Sciences
Aalto University, Finland Sep 2023 - Present
Major: **Speech and Language Technology**
Minor: **Machine Learning, Data Science and Artificial Intelligence**
- B.Sc. in Computer Science & Engineering
North South University, Bangladesh May 2017 - Sep 2021
CGPA: **3.81 / 4.00**
Specialization: **Artificial Intelligence**

Awards & Scholarships

- Finland Scholarship for graduate studies at Aalto University, Finland.
- Summa Cum Laude in Bachelor of Science.
- Partial tuition fee waiver grant for undergraduate studies at North South University, Bangladesh.

Research Interests

Natural Language Processing, Computer Vision, Speech Processing, Meta-learning

Publication († indicates equal contributions)

- **Advancing Bangla Punctuation Restoration by a Monolingual Transformer-based Method and a Large-Scale Corpus**
EMNLP 2023 Workshop BLP (Accepted) / [code](#)
Authors: Mehedi Hasan Bijoy†, Mir Fatema Afroz Faria†, Mahbub E Sobhani, Tanzid Ferdoush, and Swakkhar Shatabda
- **Panini: A Transformer Based Grammatical Error Correction Method for Bangla**
Neural Computing and Applications (Accepted) / [code](#)
Authors: Nahid Hossain†, Mehedi Hasan Bijoy†, Salekul Islam, and Swakkhar Shatabda
- **Image Tagging by Fine-tuning Class Semantics Using Text Data from Web Scraping**
ICCI 2021 / [Paper](#) / [Oral Presentation](#) / Publisher - IEEE
Authors: Mehedi Hasan Bijoy†, Nirob Hasan†, Md. Tahrim Faroque Tushar, and Shafin Rahman

Research Projects (Under Review, † indicates equal contributions)

- **DPCSpell: A Denoising Transformer-based Detector-Purificator-Corrector Framework for Spelling Error Correction of Bangla and Resource-Scarce Indic Languages** [[code](#) / [arXiv](#)]
Authors: Mehedi Hasan Bijoy†, Nahid Hossain†, Salekul Islam, and Swakkhar Shatabda
Journal: Computer Speech & Language (1st Revision Done)
- **Towards Sustainable Agriculture: A Novel Approach for Rice Leaf Disease Detection using CNN and Enhanced Dataset** [[code](#)]
Authors: Mehedi Hasan Bijoy, Nirob Hasan, Mithun Biswas, Suvodeep Mazumdar, Andrea Jimenez, Faisal Ahmed, Mirza Rasheduzzaman, and Sifat Momen
Journal: IEEE Xplore (Submitted)

Research Projects (In Progress)

- **Generalized Zero-Shot Handwritten Bangla Character and Digit Recognition**
[1st Author]
- **Transformers on Bangla Natural Language Processing: A Review**
[1st Author]

Open-source

- **Imgclassifier** ([code](#))

A Python library developed on top of PyTorch that allows a user to do image classification by writing only one line of code. (Current Version: 0.0.2)

Standard Test Scores

- **International English Language Testing System (IELTS)**

Overall: 7.0 | Speaking: 8

Programming Skills

- **Languages:** Python, C, C++, SQL, Java
- **DL Frameworks:** PyTorch, Keras
- **ML Libraries:** Scikit-learn, NLTK, Gensim, Pandas, Numpy, Matplotlib, Seaborn
- **Databases:** MySQL, PostgreSQL, SQLite
- **Data Visualization Tool:** Tableau
- **Web Scraping Libraries:** Selenium, BeautifulSoup, Requests, Urllib, Wikipedia-API
- **Developer Tools:** LaTeX, Git, Google Colab, Jupyter Notebook, Eclipse, SSMS, SQL Workbench

Referees (**Available upon request**)

- **Dr. [REDACTED]**
Professor,
Department of Computer Science and Engineering, United International University
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- **Dr. [REDACTED]**
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