# Khondoker Ittehadul Islam

#### NI P MASTERS STUDENT

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### Education

#### **University of Groningen**

Groningen, Netherlands

MASTER'S IN NATURAL LANGUAGE PROCESSING

2024 - Now

- Courses: Advanced NLP (9.2/10), Deep Learning Practicals (8.0/10), Learning from Data (8.0/10).
- Collaborated with CLCG's (https://www.rug.nl/research/clcg/) research group to evaluate decoder-only LLMs' reasoning.
- · Researched on the QA domain leveraging NLI, RAG, translation & attribution techniques on a cross-lingual experiment.
- · Discovered that for the same ground-reasoning chain, different steps influence the model's responses across various languages.
- Submitted at: IJCNLP-AACL 2025 (https://arxiv.org/pdf/2508.08933).
- · CGPA: 7.7/10

#### Shahjalal University of Science and Technology

Sylhet, Bangladesh

B.Sc. (ENGG.) IN COMPUTER SCIENCE AND ENGINEERING

2017 - 2021

- In my undergraduate final year, I evaluated the mBERT's performance on low-resource languages on multiple downstream classification tasks. Developed a corpus generalization metric. Formulated an algorithm to evaluate the annotation quality of 80+ annotators.
- Presented at: Findings of EMNLP 2021, AACL-IJCNLP 2022.

# Professional Experience \_\_\_\_\_

#### 2024 - 2025 **Research Assistant**, University of Groningen

- Analyzed the reasoning capabilities of LLM models across languages, generation strategies, and parameter sizes.
- These works are done with InCLow research group: https://inclow-lm.github.io/.
- · Publications: Submitted at IJCNLP-AACL 2025 and ongoing.

#### 2025 - 2025 **Research Scholar**, University of Groningen

- · Improved linguistic capabilities of vLMs for OCR task.
- · Applied page-separation preprocessing to reduce the image resolution by half for better content analysis.
- Report: https://arxiv.org/pdf/2508.10356

#### 2025 - 2025 **Research Scholar**, University of Groningen

- · Leveraged emotional cues in debate speech for fallacy detection.
- Mapped tonal emotion values into textual representations to improve comprehension of audio features.
- Report: https://arxiv.org/pdf/2509.11127

#### 2022 - 2022 Research Scholar, Fordham University

- · Created a Bangla fake news dataset by collecting source articles.
- · Performed manual annotation with explanatory justifications.

#### 2019 - 2021 Research Scholar, SUST

- · Evaluated the performance of encoder-only models on low-resourced Bangla language.
- · These works were done with SUST NLP Research Group. It resulted in two publications.
- $\bullet \ \ \textit{Findings of EMNLP 2021: } \ \textit{https://aclanthology.org/2021.findings-emnlp.278}$
- AACL-IJCNLP 2022: https://aclanthology.org/2022.aacl-short.17/

#### 2021 - 2024 **Software Engineer**, REVE Systems

- · Project Details:
- · Automating the administrative workflow process of Bangladesh Transport Ministry.
- · Modules include Vehicle Maintenance, Human Resource Management, Bill and Budget Management, and more.
- · Roles & Responsibility:
- · Communicating with clients and incorporating their requirements.
- Notable Implementations:
- Developed administrative benchmark reports for business modules using data structures and algorithms.
- · Improved operational insights related to inventory and incident through various analytics.
- The project is in production: https://smart.dgt.gov.bd.

## Publications

- Khondoker Ittehadul Islam, Sudipta Kar, Md Saiful Islam, and Mohammad Ruhul Amin; SentNoB: A Dataset for Analysing Sentiment on Noisy Bangla Texts. Findings of EMNLP 2021.
- Khondoker Ittehadul Islam, Tanvir Hossain Yuvraz, Md Saiful Islam, and Enamul Hassan; EmoNoBa: A Dataset for Analyzing Fine-Grained Emotions on Noisy Bangla Texts. AACL-IJCNLP 2022.

# Skills \_\_\_\_\_

Technical Stack Python, PyTorch, HF's Transformers, vLLM, Git, Slurm

Research Stack Paper Reviewing, Academic Writing, Grant Writing, Project Management

### Awards

2025 Best NLP Student Project Award, @GroNLP, CLCG

Competed with 7 student teams in conducting and producing quality research.

2025 **LxMLS Scholarship**, Google & Zendesk

Received expenses to participate in Lisbon Summer School.

2025 **Erasmus+ Scholarship**, Erasmus Mundus

Awarded stipend to support exchange students.

2024 NL Scholarship, Nuffic, Dutch Ministry of Education, Culture, and Science

Grant to support researchers in Master's program.

2024 Consortium Scholarship, Erasmus Mundus

Received reduced annual program fee for Joint Master's Degree students.

2023 **Outstanding Reviewer**, BNLP @ EMNLP 2023

Provided feedback to assist program chairs and to help authors in improving their work.

2021 Student Travel Scholarship, EMNLP 2021

Received expenses to attend the conference.

## Academia Services \_\_\_\_\_

2024-2025 **Programme Committee Member**, ReMa Linguistics, CLCG, University of Groningen

Represented student cohort and provided insights on course structure to the Dutch Education Ministry.

# Complementary Education \_\_\_\_\_

- **15<sup>th</sup> LxMLS Summer School**, Instituto Superior Técnico (IST)

  Courses: Learning with Linear Models, Introduction to Sequence Models, Pretrained Transformer Models, Causality
- **Erasmus Mundus LCT Summer School 2025**, DFKI & Saarland University

  Workshops: Low-Resource Machine Translation, Interpreting Transformer Internals with Sparse Auto-encoders
- **ASML Student Excursion Day**, ASML HQ

  Day-long hands-on event at the ASML Headquarters.
- **Fundamental of Reinforcement Learning**, Alberta Machine Intelligence Institute via Coursera (University of Alberta)

  An online non-credit course authorized by University of Alberta, Alberta Machine Intelligence Institute and offered through

  Coursera. Credential ID: VYBJSWD5UKCH