# Khondoker Ittehadul Islam

#### NLP 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).
- · Research Project: Reasoning on multilingual LLM.
- 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

- · Thesis: mBERT in low-resource language.
- It resulted in two publications.

### Publications \_\_\_\_

- Khondoker Ittehadul Islam, Gabriele Sarti; Reveal-Bangla: A Dataset for Cross-Lingual Multi-Step Reasoning Evaluation. *Under Review at IJCNLP-AACL 2025.* Preprint. 

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- Khondoker Ittehadul Islam, Sudipta Kar, Md Saiful Islam, Mohammad Ruhul Amin; SentNoB: A Dataset for Analysing Sentiment on Noisy Bangla Texts. Findings of EMNLP 2021. 

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- Khondoker Ittehadul Islam, Tanvir Hossain Yuvraz, Md Saiful Islam, Enamul Hassan; EmoNoBa: A Dataset for Analyzing Fine-Grained Emotions on Noisy Bangla Texts. AACL-IJCNLP 2022.

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

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

- · Analyzed LLM reasoning across languages, generation strategies, and parameter scales.
- · Applied NLI, RAG, translation, and attribution techniques in cross-lingual evaluation.
- · Identified that different languages emphasize distinct steps of the same reasoning chain.
- These works are done with InCLow research group: https://inclow-lm.github.io/.
- Publications: Submitted at IJCNLP-AACL 2025 and on-going.

#### 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, Shahjalal University of Science & Technology

- Evaluated the performance of encoder-only models on low-resourced Bangla language.
- · Developed a corpus-level generalization metric.
- Designed an algorithm to assess annotation quality of 80+ annotators.
- These works were done with SUST NLP Research Group.
- Publications: Findings of EMNLP 2021 2, AACL-IJCNLP 2022 2

### 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.

### Hackathons \_\_\_\_\_

### 2024 **3<sup>rd</sup> Turku Technical Hackathon ☑**, RESPONSE

Participated to automate PV energy minimization at the residential scale.

### Skills

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

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

Development Stack Spring Boot, Hibernate, React, Redis, CI/CD, RESTful APIs, Distributed System

### 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.

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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 \_\_\_\_\_

- 2025 **15<sup>th</sup> LxMLS Summer School**, Instituto Superior Técnico (IST)

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

  Workshops: Low-Resource Machine Translation, Interpreting Transformer Internals with Sparse Auto-encoders
- 2025 **ASML Student Excursion Day**, ASML HQ Day-long hands-on event at the ASML Headquarters.
- 2020 **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