

# Khondoker Ittehadul Islam

NLP MASTERS STUDENT

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## Education

### University of Groningen, Universität des Saarlandes

Netherlands & Germany

MASTER'S IN NATURAL LANGUAGE PROCESSING, LANGUAGE SCIENCE & TECHNOLOGY

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. 📄
- **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**. 📄
- **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://inc-low-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 [📄](#), ACL-IJCNLP 2022 [📄](#)

- 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://www.gems.gov.bd/>.

## Hackathons

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- 2024 **3<sup>rd</sup> Turku Technical Hackathon** [📄](#), RESPONSE
- Participated to automate PV energy minimization at the residential scale.

## Skills

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- Technical Stack** Python, R, PyTorch, HF's Transformers, vLLM, Git, Slurm
- Research ToolKit** Seaborn, t-SNE, inSeq, ContextCite, LogitLens
- Research Stack** Paper Reviewing, Academic Writing, Grant Writing, Project Management
- Development Stack** Spring Boot, Hibernate, React, Redis, CI/CD, RESTful APIs, Distributed System

## Awards

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- 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**, BLP Workshop @ 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

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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

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- 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*