

Khondoker Ittehadul Islam

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Education

Shahjalal University of Science and Technology

B.Sc. (Engg.) in Computer Science and Engineering

Sylhet, Bangladesh

Jan 2017 - Apr 2021

- **Thesis:** Examining the generalization capabilities of Multi-lingual Language models in low-resource settings

Saipan Southern High School (SSHS)

High School Diploma

Northern Marianas Island, US

March 2013 - June 2016

- AP English Language and Composition : 2 out of 4

Publications

- **Khondoker Ittehadul Islam**, Sudipta Kar, Md Saiful Islam, and Mohammad Ruhul Amin, "SentNoB: A Dataset for Analysing Sentiment on Noisy Bangla Texts," [EMNLP '21](#).
- **Khondoker Ittehadul Islam**, Tanvir Hossain Yuvraz, Md Saiful Islam, and Enamul Hassan, "EmoNoBa: A Dataset for Analyzing Fine-Grained Emotions on Noisy Bangla Texts," [AAACL-IJCNLP '22](#).
- **Khondoker Ittehadul Islam**, Md Saiful Islam, and Md Ruhul Amin, "Sentiment analysis in Bengali via transfer learning using multi-lingual BERT," [ICCCIT '20](#).

Research Experience

- Analyzing Sentiment on Low-Resource Multi-Dialect Dataset ([pdf](#) / [dataset](#) / [code](#) / [video](#))
 - Examined the **negative results** of **popular pre-trained language models** in low-resource texts
 - Presented a **diversity estimation method** of the corpus to demand generalized classification methods
- Detecting Multi-Label Emotion using LLMs on Multi-Dialect Dataset ([pdf](#) / [dataset](#) / [code](#))
 - Error analyzed the **poor generalization performance** of LLMs in **multi-dialect settings**
 - Formulated a **heuristic technique** to determine the **annotation quality** of 80+ annotators

Professional Experience

Backend Engineer

Sep 2023 - Present

Turtle Solutions Limited

- > Optimized **token refresh** with Google and Apple, reducing **Redis entries** and synchronizing **cookie headers** to minimize **login prompts**.

Java Spring Boot Microservices OAuth2 Redis React

Software Engineer

April 2021 - Present

REVE Systems, E-Governance Solutions

- > Optimized **Thymeleaf's caching strategy** to accommodate frequent user role changes, achieving an **80% server response time** reduction for **≈600 users** across **365+ roles**.
- > Collaborated with client, business, and UI/UX team to design and implement several **vehicle servicing workflow** architectures adopted by **64+ regional government offices**.
- > Enhanced operational insights for **11 vehicle management modules**, including inventory and complaint, with **versatile analytics**.

Java Spring Boot Thymeleaf Hibernate Java Specifications Gradle

Skills

Programming Languages Java (Fluent), Python (Fluent), JavaScript (Fluent), C++ (Competent), Latex (Competent)

Frameworks & Libraries PyTorch, HuggingFace, Scikit, NLTK, Spring Boot, Spring MVC, Spring Cloud, Hibernate

Projects

SentNoB: Analyzing Sentiment on Bengali Social Media Texts



2020 - 2021

📄 [github.com/SentNoB](#) ☆ 10

SentNoB is an annotated sentiment analysis dataset that demonstrates the generalization inadequacies of Neural Network models on user-generated Bangla texts.

Pandas Matplotlib NumPy Tensorboard PyTorch Transformers

Programming Records

2018	ACM ICPC Dhaka Regional Preliminary 2018 , Team: SUST_RedPanda,  codemarshal.org/preli-18	<i>Rank: 102</i>
2017	ACM ICPC Dhaka Regional Preliminary 2017 , Team: SUST_STS,  codemarshal.org/preli-17	<i>Rank: 218</i>
	CodeForces , UserName: _kh	<i>Max Rate: 1376</i>
	CodeChef , UserName: ettehad97	<i>Max Rate: 1648</i>

Awards and Scholarships

2023	Outstanding Reviewer , BNLNLP @ EMNLP 2023
2021	Travel Scholarship , EMNLP 2021

Professional Services

2021	Student Volunteer , EMNLP 2021
2013-2016	Junior Reserved Officer's Training Corps (JROTC) , SSSS

Linguistic Skills

Bangla	Native	
English	Intermediate	<i>IELTS 7</i>
Hindi	Conversational	
Arabic	Reading and Writing	