

My research interests include Machine Learning, Natural Language Processing (NLP), and Computational linguistics. These fields are revolutionizing people's lives by introducing advanced applications such as Language translators or Chatbots. To be a part of this revolution, I want to pursue a master's degree focusing on NLP and the Erasmus Mundus European Masters Program in Language and Communication Technologies (LCT) is a perfect program to explore more about computational linguistics. When I was in my final year, the impact of several Fake News incidents in my country made me realize the importance of Fake News research in the Bangla Language. Therefore, in my thesis, I worked with fake news in Bangla. Here, I investigated the possible solutions to identify fake news by machine learning. Since there was no prior dataset on Bangla Fake News, I built a dataset consisting of  $\approx 50K$  news. Afterward, I developed a system to classify fake news with Lexical, Semantic, and Syntactic features. Additionally, I also explored the performance of neural architectures such as LSTM, CNN, and the pre-trained BERT in this problem. After graduation, despite having opportunities to work in the software industry, I opted to join my university as a research assistant. Here, I am working on the effect of sentence alignment and lexical diversity on Neural Machine Translation in Bangla $\leftrightarrow$ English parallel corpora. Recently, I joined a collaborative project conducted by a group of researchers from Fordham University, USA. In this project, we are investigating the possible gender bias in TED Talks and the relation of audience rating with the speaker's gender. Being part of this team, I have obtained an opportunity to utilize my theoretical knowledge of statistical methods such as Regression Analysis, ANOVA test, and Chi-Square test in a practical research problem. After completion of my master's degree, I want to pursue a phd degree focusing on NLP which eventually will help me to reach my career goal of joining academia. Before going for phd, the comprehensive courses offered by this program, in particular, the core modules and the opportunities for participation in research will definitely enhance my knowledge about NLP. Moreover, the LCT also brings the scope to learn about different cultures which not only helps the students to be better at computational linguistics but also improves cultural insights.