

I want to express my enthusiasm for the application for an M.Sc. opportunity at the prestigious New University under the program named Erasmus Mundus joint Master in Artificial Intelligence. I am a B.Sc. student in Computer Science and Engineering at Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh. My interest in this topic grew when I worked on my B.Sc. dissertation at SUST as an undergraduate student. My thesis was titled Unraveling the Web of Information: A Comprehensive Study on Misinformation, Disinformation, Satire, and Fake News. My interest was developed by learning and working with the characterization of texts and understanding their different contextual meanings.

I have also developed comprehensive knowledge on artificial neural networks, deep learning, and machine learning models during this journey. I possess good knowledge and expertise in essential architectural concepts like transformers, deep convolutional neural networks (CNN), recurrent neural networks (RNN), and long short-term memory (LSTM) models. Through the utilization of the Python programming language, I have effectively harnessed the power of these concepts. During this work, I also developed a new Siamese architecture for a multi-class classification task for a multi-labeled dataset. This experience has tremendously enhanced my understanding and expertise in the fields of deep neural network technology, NLP tasks, and securing texts on social platforms. Furthermore, I have gained valuable knowledge in the field of web scraping for real-time data retrieval, along with conducting in-depth data analysis using MATLAB and Excel. During my tenure, I actively engaged in paper composition by participating in a collaborative task competition orchestrated by EMNLP-2023. My understanding of how to create high-quality papers has greatly improved through this experience, including the knowledge and application of proper formatting styles such as MLA and APA. During this period, I have received extensive training in academic research writing, which is an invaluable skill that will allow me to maintain the highest standards of quality for my Ph.D. or M.Sc. research.

While studying for my bachelor's degree at SUST, I had the extraordinary chance to fully immerse myself in the realm of NLP systems and text classification. Through my undergraduate

course, I have acquired the expertise to produce professional thesis papers and have also developed practical skills in working with various model architectures pertinent to my field. During my undergraduate studies, I conducted extensive research on Bangla Fake News Classification, employing advanced NLP techniques. After thorough research, we successfully developed an advanced multi-labeled classification model using the state-of-the-art Siamese Neural Network design. I took charge of leading a team at SUST for a group research. My exposure to NLP and AI began during my bachelor's degree in CSE at SUST. Studies on artificial intelligence and machine learning gave me a strong background in them. I am extremely enthusiastic about pursuing my master's degree in the "Erasmus Mundus Joint Scholarship in Artificial Intelligence Program." This program offers an incredible opportunity for me to enhance my existing skills and prepare myself for a successful career in research.

My goal is to specialize in my desired field by immersing myself in "Artificial Intelligence" and becoming an expert. I want to build my career in research and development. It would be pleasant to have the opportunity to share my skills with others through research. Because of this reason, after finishing my M.Sc. or Ph.D. degree, I want to return to my country, Bangladesh, and become a researcher at a reputed university or lab. I am thrilled to share my vast knowledge and refined research skills with my prospective researchers.

A decent researcher can only be built on the solid foundation of a good education. I firmly believe that being part of such a vibrant academic and laboratory setting and having the chance to work alongside highly qualified professors will have a tremendous impact on my growth as a researcher and play a crucial role in shaping my personal development. My experience at SUST has provided me with the essential skills required to excel in a M.Sc. program. It has not only boosted my confidence but also established a solid technical background and the perfect mindset for conducting innovative research at the M.Sc. level.

I look forward to a long and mutually beneficial connection with the "Erasmus Mundus joint Masters in Artificial Intelligence program."