

I am writing to recommend Afrina Tabassum for admission to the PhD program in computer science in your reputed university. I have been her thesis supervisor for the last eight months and have been consistently impressed with her diligence, efficiency, and ability to get things done. Her hard work is reflected in her academic result. At present she is pursuing her B.Sc. in Computer Science and Engineering in Bangladesh University of Engineering and Technology. She secured 5<sup>th</sup> position out of 121 students in her class with a CGPA 3.95 out of 4.00.

As a Professor of Computer Science and Engineering at Bangladesh University of Engineering and Technology, I have known Afrina both as a teacher and thesis supervisor. I had the opportunity of teaching her in three courses: Object Oriented Programming Language, Database and Artificial Intelligence. I first met her in the Object Oriented Programming Language course. She caught my attention by showing immense curiosity and devotion to the subject which required a lot of hard work as students had to learn two programming languages: JAVA and C++ in a very short time. She used to complete all the assignments and online tests very smoothly and obtained a perfect grade in that course.

As a teacher I have observed her ability of critical thinking in class. Whenever I used to ask challenging questions in the class she used to answer them enthusiastically and quickly. In the Artificial Intelligence course there were a lot of abstruse topics. She was one of the most attentive and regular students in the class. If any topic seemed unclear to her, she used to ask question about that topic instantly and made sure to clear all the confusion.

As a supervisor of her undergraduate thesis, I witnessed Afrina in her endeavor to deliver quality research. Unlike other students who had difficulties in finding an appropriate topic she was focused and determined from the start. I have seen her evolving as a researcher during these eight months. She is working on 'indexing data with Machine Learning'. Though application of machine learning in Database is a nascent and challenging field she did not hesitate at all in this as a thesis topic. Her thesis focuses on indexing data with Machine Learning considering both Data and Query distribution. That means indexing data in a way so that the index procedure changes as the data and query distribution change. Meanwhile she has built an improved dynamic Recursive Index Model which perform better than the existing static Model. This experience has instilled in her critical thinking and problem-solving skills important for a career in research.

Afrina is an independent self-starter. While she has no trouble working in groups, or interacting with others, she can also work well on her own. I have seen her working with her classmates in both JAVA and Database project. Also she is working on her thesis by herself and she is doing it very well.

In short, I give Afrina my highest recommendation, and very much hope that the committee judges his application favorably. Please feel free to contact me if you require further information.

**Dr. Mohammed Eunus Ali**

Professor

Department of Computer Science and Engineering

Bangladesh University of Engineering and Technology, Dhaka-1000, Bangladesh

Email: [eunus@cse.buet.ac.bd](mailto:eunus@cse.buet.ac.bd)