

I welcome this opportunity to recommend Abida Sanjana Shemonti for a place in the computer science graduate program at your renowned university. She is a highly motivated, competent and committed student whom I believe to grow into a successful researcher.

By the time I returned to Bangladesh University of Engineering and Technology after completing my Ph.D., Abida was a senior year student. I first met her in my Digital System Design lab. It is a lab course based on designing various components of a computer where the students have to work in a group of five. Abida was very cooperative in working with her fellow group members. She had in-depth understanding in designing Arithmetic and Logic Unit, Multipliers and other components both in hardware and simulator. She came up with some effective strategies for designing a 4-bit PC following SAP Architecture. She excelled in the course with a grade of A+.

Abida was also my student in Computational Biology course. The course required a project similar to small-scaled research work. After a methodical study, she chose a topic that fits her academic interests. Her project examined the efficiency of using partial DNA sequences in species identification and she used DNA Barcode as partial DNA sequence. For identification, she considered Simple Logistic Function, Random Forest, PART, K-Nearest Neighbor and Bagging from the Weka software suite. The results showed that the classification performances of the selected methods are at a comparable level, and even superior in some cases, to the well-established DNA Barcode classification methods- BLAST, BLOG, DNA-BAR, PAR, Nj, and NN. They also demonstrated the effectiveness of using supervised machine learning methods to classify species with DNA Barcode. I believe this experience has infused critical thinking and problem-solving skills in her that are important for a career in research.

Abida joined the Department of Computer Science and Engineering at Bangladesh University of Engineering and Technology as a Lecturer after graduation. She is dedicated to conducting her courses and mentoring students. She is quite popular among her students for her cheerful and cooperative personality. As a junior colleague, she is dependable about official responsibilities. Her assistance in thesis defense organizing committee was very supportive, and I feel her punctual and well-organized nature will give her an edge in managing research works better.

In closing, I believe that Abida has the capacity to excel in a career as a research computer scientist and is well-suited for this graduate program. So I recommend her without hesitation to be given the opportunity to attend your university with possible financial assistance. Please do not hesitate to contact me with further questions.

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