Statement of Purpose of Md. Abed Rahman

Growing up with two clinical psychologist parents motivated me in understanding the inner workings of things, be it the human mind or something else. However, my general interest in computing sciences first emerged when I took a High school course in computer science. There I made a basic calculator and the pleasure of writing a bit of code that had a tangible output made me interested in the inner workings of a computer. During my higher secondary years I also learned how it is possible to solve certain problems by finding ad hoc solutions, all I had to do was brainstorming a little. These events made me sure about pursuing a career in computing sciences.

The first step of my journey to be a computing science professional was getting admitted to the Islamic University of Technology (IUT). Congenial class environment and highly competitive student mindset made it one of the leading engineering universities in Bangladesh. From this esteemed institution, I obtained a B.Sc. in Computer Science and Engineering with my Organization of Islamic Cooperation Grant and Bangladesh Government Scholarship.

During the initial phases of my undergraduate studies, I got involved in competitive programming. I developed a working knowledge of algorithms and problem solving. I would sit down for hours and think about how to solve a problem, sometimes even sleep over it. On the other hand, several courses in programming and database management courses gave me the opportunity to experience application development firsthand. In my sophomore year, I developed a desktop application to manage a sports inventory. My teacher was very impressed with the level of depth I had shown in this project and I was rewarded with the highest grade possible. He even suggested the university to use this software for managing our university's sports inventory. In my junior year I developed a criminal information management system which helped in improving my working knowledge of database concepts and it too, received the highest grade.

I was also interested in various subjects like Discrete Mathematics, Graph Theory, Human Computer Interaction, Pattern Recognition and Artificial Intelligence. The idea that an interdisciplinary study of humans and machines could yield more effective and efficient machines thrilled me. My mind would wander and think about the endless possibilities, a machine that would understand that the user is having a bad day and greets him with his favorite music or an NPC in a game that would detect a player is skilled and increases its difficulty- these things were stuff I would daydream about building someday.

I elected to do my Bachelor's thesis on Ubiquitous Computing. More specifically, I worked on Smartphones based Lifelogging. I was inspired to dive into the depths of this field when I saw how fresh and new it was compared to other fields in Ubiquitous Computing. I observed that the tools for Lifelogging were going through changes. Also the idea of a single device based Lifelogging system was becoming apparent and Smartphones were becoming the primary choice for such systems. However, there was an absence of a complete Smartphone based Lifelogging

system. Again, the main focus of a Lifelogging system was to trigger reminiscence in a user. So I worked on making a complete Smartphone based Lifelogging system with music as an added reminiscence tool. The idea showed promising results in improving reminiscence and it was well received by the panel of professors to whom I defended it at the end of my senior year.

Alongside my research work, I was also one of the executive members of the IUT Computer Society, which organizes the National ICT Fest hosted by IUT every year. As a member of the committee, I was in charge of managing the ICT Olympiad sector in the fest in 2012. In the end, the National ICT Fest was a grand success. I also represented my university in various internal and national level programming contests. My team was the runner-up of IUT Inter Departmental Programming Contest 2010 with me as the team leader. All of these co-curricular activities boosted my competitive spirit and developed my abilities in event management, organization and interpersonal relationship skills.

After completing my graduation securing the second position in a highly competitive class of 45, I joined the Samsung R&D Institute Bangladesh. I worked on the TIZEN project - an open source operating system for multiple devices. Linux foundation, Intel and Samsung are supporting its development. After my small but valuable time there, I joined the Islamic University of Technology (IUT) as a lecturer in December 2012. Recently, I have taught a course in Computer Programming and have instructed the corresponding lab class. I have also conducted several courses like Unix Programming, Computer Fundamentals and IT Project Management. Moreover, I have also worked as an instructor in the lab classes on Software Development, Unix Programming, Database Concepts and Programming, IT Project Management and Computer Fundamentals. Being a teacher gives me the opportunity to be in an environment which is congenial to research and guarantees constant exposure to advanced research methodologies and ideas. It is my firm belief that my work experience as a teacher will be conducive to research that I wish to conduct, when I enroll myself in a graduate program.

It was in this vein, that I decided to further my career in research and it prompted my interest in the graduate program XXX University. I am aware that the XXX University is a top university and the research innovations of diverse fields here is what made it one of the best research centers. Each of the main areas in which I am interested in hold a special place in my heart. Human Computer Interaction, which brings together my love of both behavioral science and Computer Science is the field, I am interested the most. I am also interested in Ubiquitous Computing, as this is the field in which I have conducted my Bachelor's thesis and in which I have the most experience in research. Finally, I am interested in Artificial Intelligence which is the consequence of my fascination towards intelligent agents.

I am very eager to work under and with some of the finest minds in Computer Science which would prepare me for a career in research. I wish to earn a Ph.D. and I hope that my background, education, motivation and qualifications are found suitable to enroll into the Ph.D. program in Computer Science at XXX University.