Why a Phd?

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I. INTRODUCTION

A Phd is a long, in-depth research on a specific topic and typically it takes around five to six years to complete Phd. As Phd is concerned about in-depth knowledge about a topic, it is often believed that creating new knowledge is the main goal of Phd. Phd degree programs are also designed to train candidate to become a skilled researcher who can conduct research on his or her chosen research area. As Phd needs long time to complete and need to have in-depth knowledge on the concerned topic, there is always a anxiety about motivation and expectation of doing Phd and in this regard "Why a Phd?" is vital question. In this paper I would like to discuss about doing Phd, process and concerns of doing research, my motivation behind choosing Phd track and future goals after completing Phd.

II. WHAT DOES A PHD ENTAIL?

A. *What is Phd?*

PhD is short for Doctor of Philosophy. Phd is a highly recognized postgraduate academic degree awarded by universities who has submitted thesis dissertation with originality in the field of research area. And this is the highest level of degree a student. Usually people enters into Phd after completing Masters degree, but there are also some universities where student can be admitted after completing Bachelor Degree. In Bachelor and Masters degrees are about breadth not depth, but Phd is about in depth on a research area. Phd program usually requires to do ten courses in five to six years. Main concern of Phd is not around the courses, rather than research on specific area. Although to qualify for Phd, we need to pass Core courses and Qualification Examination, but main point of Phd is doing research.

B. *Thinks and Concerns of doing Phd*

- In classed students usually work on known topics and homework, but in research one has be concerned about unknown research area. In Phd research one has to pick unknown topic and work on the topic even he or she does not know whether it is really solvable. Another thing is that in research student and teacher formally known as advisor both works together to solve the research problem. Finding solution will be credit for both advisor and student.
- Research can be both rewarding and frustrating. When one's research work gets accepted in conference or journals then it's matter of great joy and works will be praised by everyone. But this is not the scenario every time. In Phd finding suitable topic is difficult job and we might not know how to solve the research topic. So we have to work and work for the solution and submit the solution in conferences and journals, but that may not be accepted always and Phd candidates may feel frustrated when they work hard but gets rejection mails.
- For the case of Bachelor or Masters Degree where we or our parents pay tuition and other expenses. But for the case of Phd fund is not a concern, rather it comes as a grant. In most cases Phd candidates will not pay tuition fees and gets small stipend for living and other expenses and Phd candidate usually needs to have work as Teaching Assistant (TA) or Research Assistant (RA). Thus Phd candidates get excellent opportunity to flourish knowledge, publish paper, attending conferences without expending money.
- After completing Phd people usually gets involved in teaching profession and doing jobs in research lab. So, carrier opportunities get narrow after doing Phd.

III. WHY I CHOSE PHD TRACK

After completing my graduation in Computer Science and Engineering , I started my professional carrier as a software quality assurance engineer, which I believe has given me a better perspective on graduate school. During my career as a software quality assurance engineer, I was involved in almost all areas of the Software Development Life Cycle and had the opportunity to gain in-depth practical experience with the various aspects of software architectures, emerging methods and technologies for software evolution, and process management.

Due to fascination on research; I voluntarily approached Dr. Mohammad Nurul Huda and joined to United International University, Bangladesh Speech Recognition group and this was the step that made me confident for doing higher study and to do cutting age research. At the beginning, I was involved to build Bangla Speech Corpus and pronunciation dictionary and then I implemented speech feature extraction procedure such as Mel Frequency Capestral Coefficient[1] and Local Feature[2] extraction algorithm. Then I with other group members implemented HMM based MonoPhone and Triphone[3] model for bangle speech recognition. Soon after getting first acceptance of research publication in IEEE International Conference on Intelligent Computing and

Cognitive Informatics (ICICCI2010) I felt much more enthusiastic about research and I got admitted to United International University for M.Sc. in Computer Science and Engineering (CSE) program.

During my M.Sc. courses, I got much detailed knowledge on Advanced Programming and Machine Learning areas and I was involved in doing more advanced research on speech recognition. I started my thesis under Professor Dr. Mohammad Nurul Huda; with his courage and help I have implemented different learning algorithms such as Back Propagation Neural Network, Recurrent Neural Network, Tandem Neural Network[4], Clustering Algorithm and incorporated these algorithms with HMM based classifier for better performance. These research works are accepted and published in some of the prominent international conferences such as Hybrid Intelligent Systems(HIS 2010) Atlanta, International Conference on Information Technology(ITNG 2011) Las Vegas, International Conference on Advances in Computing and Communications(ACC) India, International Conference on Computer and Information Technology (ICCIT) Bangladesh etc and some of the well-known journals such as International Journal of Speech Technology(IJST) Springer, Journal of Multimedia(JMM) Academic Publisher etc. I have also completed the M.Sc. degree course work from the same department with a CGPA of 4.00 on a scale of 4.00 and successfully presented my thesis desertion on “Neural Network based Context Sensitive Triphone HMM for Bangla ASR.”.

I am aware that research can be both rewarding and frustrating. However, the achievement is well worth the cost in terms of intellectual satisfaction and gratification. My decision to pursue a Ph.D. following the M.Sc. is not only compatible with, but also a prerequisite for my ultimate career goal to obtain a position in research arena.

IV. Future Goals

After completing Phd, I have plan to get back to software industry or research labs where I can work and research on areas which are related to my Phd research. To me Phd Degree does not meant to learn one’s to work on specific area rather it learns how to find solution of a problem. So, I think if I can complete my Phd Degree, this will help me in my future endeavors to work in different research problems.

References

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