Writing a Statement of Purpose Helali Mortuza Bhuiyan Graduate Student, Computer Engineering University of Virginia

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1. Preface

Good wishes for everyone. This article is all about writing a good Statement of Purpose or SOP. I am assuming that everyone who is reading this article knows about an SOP and its importance. I tried to summarize some key points on writing a good SOP and also some difficulties that BUET students usually face. Some thoughts expressed in here are solely mine. This article is an extended version of an email that I posted on Oct 01, 2006 on the csebuet@yahoogroups mailing list.

2. SOP - What's it all about?

An SOP is a personal statement that says who you are, what are your intents, and why do you like this career path (You are a dying fan of research or your father wants you to be a doctor...kidding, don't do this). At this time when you are thinking of writing an SOP, you should be at the end of your undergrad. That means your cgpa hunt is almost over. You will have to fight with whatever cgpa you have earned so far. Also you might have already finished your GRE and other tests. Hence you have nothing else to do with your scores. The only thing you are left with is the SOP, the ultimate weapon to get a better admission for your graduate study. You cannot control your LOR (Letter of Recommendation) which also has a great impact on your admission result taken by the university admission committee (I do not want to mention the bad practice that we follow for LOR in BUET in this article).

Some people ask me questions like this, "My cgpa is 3.x, GRE score is abc, my classmates with higher cgpa than mine are also applying for this same university, should I go for it?" I usually do not say no to this people unless they have a very low score compared to their high cgpa holder friends. Why? Once I talked to my departmental chairperson about the admission decision procedure for a little bit. She said when they get a lot of good applications with similar good results (which they always have); they pick up the successful ones who

look promising. Now you might ask me two questions, a) what band of cgpa will I call similar results and b) how do I define who is promising? For the first question, it has no definite quantitative answer. I would say anything above 3.8 cgpa is similar. Likewise 3.6 to 3.8 may be considered as in a similar band. Others may come up with different ranges. In case of GRE, the same kind of ranging can be done. Now come to the second question, who is the promising candidate and how do you prove yourself as a promising candidate to the admission committee. The answer is the SOP. When everyone looks the same in terms of scores, your SOP gives you an edge. You better think of taking this SOP writing job into a serious consideration right away.

3. What do I say in my SOP?

Now that you have understood the importance of the SOP, what should you put in your SOP? This question needs a lot of brainstorm to come up with a good answer. Different people will give you different ideas, even though all will circle around some basic ideas – it's all about you. An SOP is a bigger version of an Elevator Speech, I would say. The admission committee reads hundreds of SOPs each year and they are quite seasoned and bored with reading the same thing again and again. You will have a vantage point only when you write an SOP that attracts the attention of the professor who is bored and tired in late afternoon thinking of going home. Do not write something mediocre by doing some "chothabazi". Be genuine.

Here comes the big question, "How do I attract their attention showing that I am good?" There is no direct answer unfortunately and there are no specific rules for doing so. Looks like I do not have any direct answer for anything today. But sometime life is like this. You will have to come up with your own answers. Devise your own game plan. Every SOP is unique in a sense that it tells about a unique person. Find out what makes you unique or special compared to the others. Make a list. Now again you ask me a question (I am never bored with questions, ask me as much as you want), "I am the hall champion in playing the Age of Empires, does that make me unique?" Umm... probably not. You are applying for a graduate admission, keep that in mind. Your research intent, capability, potential, past experience, projects you have done that inspired you to come this far are some points that you can focus on. Just do not say that you are good, passionate, and hard working. Show them with examples that you are really the person that you say. Show them that you are good. When every applicant has good scores the admission committee uses all the scores just as a baseline. But what they really look for is the potential. Scores give the quantitative potential, but the qualitative potential is the key to beat others when everyone is good.

So what do you say in your SOP – the potential that you have inside you which makes you a perfect candidate for this admission. Just don't say it, show it.

4. What research interest should I put in it?

Looks like I am dealing with a lot of questions today. No problem. This one is easy – select something that has some implementation or effective output. More precisely, a research field that can earn some revenue (in monetary sense) in the real world. Why do you even care about whether your research topic will earn money? Because the people or organizations who are funding the professors want money. Except some organizations like NSF (National Science Foundation) who give money for advancement of science, everyone is giving this fund so that they can get some output from it in return that will boost their future market. Intel wants more power efficient chip design methodology. You show interest in power-aware chip design; you have a higher chance of getting an admission as most of the chip industries are focusing on power issues nowadays. Maybe you have noticed that Intel is not increasing its microprocessor clock frequency further anymore. They are trying to make it more power efficient. Anyway, that's a different topic which is not the focus of this article.

So the baseline is, stay away from theoretical computer science topics. Some of you may have interests in theory, but you should be careful that not too many people do research in theory as funding is low in those areas. Low funding means lower admission chance.

5. I had something else in my undergrad thesis!!

This is a common problem for most BUET undergrad students. Due to the lack of research opportunities, most of us end up doing something that we do not like. Most frustrating part is that we end up doing our thesis in theory. So when you are writing your SOP, you are confused because you like Computer Architecture but your undergrad thesis is on Graph Theory. Moreover, showing intent in theory may lower your chance of getting the admission. What will you do? My suggestions!! It does not matter if you have your undergrad thesis on something else. The admission committee knows how much research an undergrad can do. They do not expect too much from you. Even though you have done something on a different topic, state your intent clearly. But focus on your passion that you want a research career, you have some research background. Your undergrad thesis might help in this case to prove that you are worthy of doing research.

What if you have an MS from BUET? Then you should have a legitimate reason to switch from your MS thesis subject to the new topic that you are going state in your SOP. This is a bad idea I would say, cause coming up with this legitimate reason is not so easy. If you don't want to switch, then that's good. But as I said before, sticking with theoretical research may lower your chance of getting admission.

6. Do research on research

You read right, you will have to do research on research. Selecting which university to apply is a big dilemma for a student. One of the key factors that should be considered is what research opportunities are currently going on in that university. Go to their research web pages. Browse thoroughly. Then go to the faculty web pages. Find out what they are doing NOW. Professors generally have interests in multiple related fields. But at some point of time they work on some specific topics. Figure that out. Show your interest in your SOP on that topic. Most probably they have fund on those fields. Sometime looking at research projects' web pages help a lot to get some idea about ongoing research fields.

7. Tailor it accordingly

May be you are not applying to only one university. Do you write only one SOP for all of them? Maybe not. Because different universities will have research strengths in different fields. You might want to modify your research interests a little bit so that it fits that particular university. As I said in my email, you will have to sell yourself. Give them whatever they want. You do not have to modify the entire SOP, just the place where you show your intent. In this case essentially you are writing only one SOP for all of them but just modifying a little bit to fit a certain university.

8. Consistency in interest

Be consistent when you state your research intent. Do not show interest in too many diverse fields. For example, showing interest in both Distributed Systems and VLSI is not a good idea. Maybe Wireless Sensor Networks and Distributed Systems sound a lot more consistent. Do not use some fancy words to sound yourself as if you know everything. Be reasonable.

Ask your friends and seniors to know which fields are currently most active. Remember – Information is the key. You can be miles ahead of others if you know more. If you can say something on these recent areas, it will give you a better position to impress the admission committee. For instance, wireless sensor networks, power-aware chip design are some of the most active research fields nowadays. Others can name more.

9. No paper? You have job experience??

I have a friend who works in one of the telecommunication companies in Dhaka. He is trying hard to get an admission in North America. But sometimes he gets frustrated as he does not have any research experience or any paper published. Is that a big issue if you don't have any paper? I would say no. If you ask the senior students who are already doing their MS/PhD, you will find most of them had no paper published at the time of their admission. As I said before, the admission committee does not ask for too much from an undergrad in terms of previous research activity. You should not forget one thing that you have something else that can be a lot more beneficial - job experience. If you show your research interest that relates to telecommunication, it can be a great plus point. Similarly those who are working in the software industry back in Dhaka can also focus on that. Whatever you have, show it. Sell yourself.

10. Now that you are ready ...

Ok, enough of these vague ideas that I threw over you so far. Let's discuss about something concrete. Now that you have decided what are your interests and all that, how do you start writing your SOP? Following are some key points to consider. This list is not necessarily complete but can be helpful.

- a) Take preparation early. It takes time to write a good SOP. At least a month or may be more. Make a list of what points you are going to discuss in it. Find out what are your strengths.
- b) Layout a structure. Decide how many paragraphs you will have, what will be the contents of each paragraph. A basic layout of paragraphs can be like this –
- 1. Para I Introduction. State your intent in short. Do you want to have an MS or PhD? What research fields do you like to work on? This intro should be a summary of the remaining paragraphs.
- 2. Para II Your educational background. Things you have done that inspired you to take a research oriented career path.
- 3. Para III Your research interest and reasons behind selecting that field. This interest can be based on your academic or job experience. Make the relation clear. This paragraph can be decomposed into two paragraphs.

- 4. Para IV Reasons behind choosing that particular university. Research activities in that university those attracted your attention.
- 5. Para V End paragraph focusing on your passion, goal, intent, reasons behind being a perfect candidate for this admission and a nice finish.

This layout is just an example from the top of my head. You might come up with something more appropriate.

- c) Make the introduction attractive so that the reader thinks it is going to be a good one. Attract his attention. State your intent clearly.
- d) Do not write a lengthy SOP. The reader does not have too much time to spend on one. Be concise. The optimal size of an SOP should be within two pages.
- e) Do not start with your childhood fascination with computer, the day your father bought you a computer and you fell in love with it. Don't be funny.
- f) Be coherent in each paragraph. Keep the transition from one sentence to another smooth. The flow of the writing is too much important. Keep the flow smooth when you start a new paragraph. There should be a connection between two consecutive paragraphs so that the reader does not feel lost.
 - g) Never use any kind of negative tone, use active voice.
- h) In one of the paragraphs, state the reason behind choosing that particular university that made you interested about that university.
 - i) Five to six paragraph should be sufficient.
- j) Use standard font and font size. Do not use any kind of fancy font. Be professional.
 - k) Focus on teamwork. People in here want a person to be team oriented.
 - 1) State the reason behind choosing a certain research area.
- m) Leave a sense of completion when you finish. Do not just cut off at some point. The reader should feel that you have said everything and nothing else is left.
- n) You can collect some sample SOPs from others to get an idea on how to write a good one. But never ever copy. Be genuine, be yourself.

- o) After writing a draft copy, print it and proofread. Correct the errors and again print and proofread, three times at least. The reader will reject you as soon as he finds that you do not know the basic rules of grammar. These people read hundreds of technical reports. They do not like grammatical mistakes at all. You mush have 0% tolerance for grammatical mistakes.
- p) Get corrections from at least two people. One who knows English grammar better and one who knows how to write a good SOP. Do not rely on your own instinct. Opinion from a different person's perspective always helps.
- q) Do not use tough words, like GRE words. It might be tempting to use those words as you might have just completed your GRE. But avoid this. Do not put too much "shahitto" in your writing. Use simple words and simple sentences. Do not use long complex sentences.
- r) You can also get some help online. There are tons of websites that can help you to write a better SOP.
- s) Do not procrastinate. Start writing today. Again I am telling you, it takes time. Edit, proofread, print, rewrite again and again until you are happy. Don't be happy too early. Criticize yourself. You are not competing with only other BUET people; hundreds of students from other countries are also competing at the same time.

11. Finally...

Yes, finally I am done. But there is a big journey ahead of you. Be confident. Be positive. Wish you a big a success.