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About Research Students Teaching Misc

# [Graduate School] Personal Statements

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I am going to talk about the graduate school application process in phases and the first will be the personal statement (a.k.a. "statement of purpose," "research statement," or "statement of objectives"). The rest of this post will tell you what I learned about the personal statement and how to approach each part of the prompt. To help those out there who are applying, here are three of my seven statements:

- <u>MIT CS</u>
- Berkeley CS
- Stanford EE

No material has been cut out, except for some peoples' names (although they can be inferred if you put some effort forth). *Note on length:* MIT gave no word limit on the prompt, so that essay is the union of all of my other essays. Berkeley was a bit more constrained (< 2 pages), and Stanford was very strict (< 4,000 characters).

I got into all three programs. That doesn't necessarily say much about these essays, as the personal statement doesn't an application make. It probably says that these essays didn't ignite any fuses, though. *These essays will be referred to throughout the post*.

# The personal statement

The personal statement is the primary (perhaps only) essay that you will have to write. Furthermore, the prompt will be similar across schools. Based on chats with faculty, I would rank the personal statement as the third most important part of your application, behind (1) [great] published results and (2) letters of recommendation. Since most people don't apply with (1) under their belts, the personal statement is second to letters of recommendation. To top Ph.D. programs, you can bet that your personal statement will weigh more than your GPA. After all, a very important part of being a graduate student, and scientist in general, is your ability to synthesize what you know and to communicate effectively. Writing a concise research statement is a relevant sample point in that space.

I applied to primarily CS programs (only Stanford was EE), specifically systems and architecture. The personal statement prompt doesn't change much across Ph.D. programs, however. Here is an example prompt from Stanford's graduate admissions site (as of Fall 2010):

The statement of purpose should describe succinctly your reasons for applying to the proposed program at Stanford, your preparation for this field of study, study and research interests, future

career plans, and other aspects of your background and interests which may aid the admissions committee in evaluating your aptitude and motivation for graduate study.

As it happens, it took me 2-3 months to answer this prompt effectively. I started at the beginning of September, and ended up rewriting what would be my 'template' essay several times from scratch.

What makes this take so long? In the end, your essay will only improve through revisions. There are two ways to make revisions: (1) to revise the essay yourself, (2) to have other people read the essay and comment. Personally, I cannot make effective revisions until a fresh essay draft has sit for a few days. If I review something right after writing it, everything is still too fresh in my mind, and I miss potential improvements. After a few days and the dust has settled, it is easier to come back to an essay and read it while keeping a fresh perspective. In some ways, waiting a few days before you revise brings your own revisions more inline with other readers' revisions. This brings me to mentioning (2): other peoples' revisions. Naturally, when you hand an essay over to a reader, they will take several days to get to reading what you wrote, commenting, getting back to you, etc. So, whether you are a (1) person or a (2) person, making revisions takes time!

Looking back at the prompt, there are 5 things that you want to talk about:

- 1. (1) What are your reasons for applying to the proposed program at XX?
- 2. (2) What is your preparation for this field of study?
- 3. (3) What are your research interests?
- 4. (4) What are your future career plans?
- 5. (5) What other aspects of your background are relevant to the admissions committee?

I addressed these bullet points in my essays in the following order: (3), (2), (1), and sprinkled (4) throughout. The following discussion will cover them in that order.

#### (3) What are your research interests?

- (3) is important and comes down to "why do you want to go to grad school?" Without getting into why this is obviously a deep question, here are two questions to ask yourself that will help towards addressing it:
- 1a. What are some interesting problems that you see in your chosen field?
- 1b. While in grad school, what do you want to learn?

The idea behind thinking in these terms is to sound like a scientist when it comes time to actually write. (1a) is meant to inspire some deep thinking. The outcome should be you being able to talk about your chosen field in somewhat broad terms, and pose some questions that you would like to address as a graduate student. (1b) is really meant to set a tone. As a grad student, your research will force you to push the boundaries on your own knowledge. You need to show the admissions committee that you are going to be proactive in growing intellectually.

#### (2) What is your preparation for this field of study?

(2) is your chance to condense your research experience and present it in pros. Condense. In pros. First, your entire personal statement has to flow as a single essay. Show how one experience led into the next, even if your second project wasn't "future work" from your first project (etc). Believe it or not, time is linear and there was some continuous inertia that carried you from one project to another! Second, be selective about which projects you talk about. You will likely be space constrained and you need to solidly address the other bullets in the prompt. Do not talk about class projects unless you didn't do any 'real' research projects (i.e. as part of a research group that was overseen by faculty). Digression: The same principle goes with asking post-docs (as opposed to tenure-track faculty) for letters of recommendation: they just don't carry as much weight with admissions committees.

## (1) What are your reasons for applying to the proposed program at XX?

(1) is where you put icing on the cake by personalizing your essay for each school that you apply to. I say "icing" conservatively. You *really should* give personal attention to each school. Doing so can direct your application to faculty readers. It also says that you were willing to put in the extra mile. There are, however, some things that you should keep in mind. First, don't ever say that you have to work with Professor XX. This will kill you in your tracks if Professor XX isn't taking students that year, etc. What I did in my essays was to mention several faculty that I would like to work with, and added that I was open-minded with regards to working with others. Second, you don't absolutely need to add (1) to your personal statement. Never leave it out for lack of effort. Only leave it out when a school gives you a small word limit (addressing (3) and (2) is ultimately more important). Third, do your homework before you mention faculty and their projects by name. My essays mention two to three faculty per application and give each faculty member two sentences. The first sentence was an enthusiastic "I would like to work with..." introduction. The second was a [hopefully informed] comment regarding one of their projects. Don't make uninformed comments on a faculty member's project (if they read it, they will know!). Also, be very careful with project dates. Don't say that you are excited about working on project Y when project Y has been complete for 15 years. Look deeper than a faculty member's personal website for their academic histories!

Digression #1: it is very common for a faculty member to (a) not update their websites for decades (don't we all love tenure?) and (b) advertise very old projects without giving project dates. In general, look for publication histories (on CiteSeer, a CV, etc). Those are a good way to track project lifetimes.

Digression #2: You don't necessarily need to add (1) if you are word constrained. Here is a way to get the best of both worlds: add the paragraph about faculty, that you would like to work with, in a supplement essay that is not a part of your personal statement. Most applications have a separate essay for filling in "extra information that you would like the admissions committee to consider." This essay isn't usually used by applicants to talk about faculty, but it certainly can be. Think about how happy professors would be if they read the supplement essay, expecting to hear some excuse as to why you got a 2.0 one semester, and find an exposition on how you would better fit into their school:). I did this for my Stanford application, as it was the most constrained for space.

### (4) What are your future career plans?

(4) is both obvious and non-obvious. First, admissions committees want to see that you are considering your

career ahead of your graduate education. So the motivation for this bullet is simple. Less obvious, perhaps, is that this bullet is a great way for you to bring your other interests into the essay. For a majority of CS applicants, post-Ph.D. means either academia or industry. I can speak more for academia, as that is what I talked about. Firstly, wanting to become a Professor is a great reason to want to go to grad school (grad school is a pre-requisite after all). That said, make sure you know what being a Professor entails. Faculty jobs are about research and teaching. Different schools will put different amounts of emphasis on each. Since most of the rest of the personal statement is about research, I used (4) as an opening to talk about teaching. I was a T.A. in undergrad (and happened to enjoy it a great deal). (4) is a good place to show passion and enthusiasm for something other than research.

### (5) What other aspects of your background are relevant to the admissions committee?

(5) is mostly in the prompt to allow you to explain away some potential red flag elsewhere in your application (such as a semester with a very low GPA, etc). If this doesn't apply to you, you can skip this part. Some people wrote about extra-curricular activities in this section. I recommend against doing this. Why? Because the admissions committee likely doesn't care. **You are being hired as a research assistant** (other grad student writers who have posted on grad school do a good job of addressing this very important point). If the experience you got from your extra curricular isn't going to help you grind out novel research, it isn't relevant.