Applying to PhD programs is a significant decision that shapes academic careers. Here, I share my insights on the application process and offer my own admissions documents as guidance for prospective applicants.

PhD applications in Computer Science are due in early to mid-December. I recommend starting your application materials in early October to give yourself adequate time for writing, revision, and feedback. Be prepared to write, rewrite, restart, and restart again. You'll also need to arrange for letters of recommendation well in advance. I asked my recommenders once in October and followed up in November. Ideally, these should be people whom you have researched with in the past, especially your PIs/research advisors.

I did not write the GRE - it is becoming increasingly unimportant to applications. That being said, some top schools like MIT and UT Austin required it in the 2025-2026 admissions cycle, so it may be worth writing it if you want to apply to a program that requires it. While in undergrad, SAT optional is not usually a good option if you are able to score well, since you are competing with multiple hard-to-differentiate candidates. In contrast, for graduate school, your application is (or should be) inherently unique, so the GRE is unlikely to be a substantial differentiator. It also does not reveal much about your research abilities in mathematics fields like Theoretical Computer Science.

I recently applied to the following PhD programs (in no particular order):

- University of Illinois at Urbana-Champaign (Awaiting decision)
- Purdue (Awaiting decision)
- Duke University (Awaiting decision)
- University of Utah (Awaiting decision)
- UT Dallas (Accepted👌)
- UC Irvine (Awaiting decision)
- University of Wisconsin - Madison (Rejected 🤡)
- University of Waterloo (Awaiting decision)
- New York University (Awaiting decision)
- University of Washington (Rejected 🤡)
- Stanford University (Rejected 🤡)
- Carnegie Mellon (Awaiting decision)

I selected a statement of purpose (SOP) from one of the universities (I selected Purdue at random) and my personal history, and have attached these below.[1]

Compared to writing applications for undergrad, the process of writing PhD applications can be much easier. All schools ask for essentially the same documents, primarily the SOP and Curriculum Vitae (CV). Some schools also ask you to submit a personal history, which complements the SOP by focusing more on your personal journey and how it shaped your research interests.

PhD is far more self-selecting than bachelor's programs - most applicants have research experience already, which is really what PhD programs are looking for first and foremost.

I started writing by outlining the structure of my SOP. I began by explaining what I wanted to do in my PhD and my prior research work. I discussed how my decision to move from human-computer interaction to theoretical CS, and spoke briefly about my recent work. To conclude, I discussed my interests at the specific university and discussed my broader academic goals for the future.

The SOP serves three purposes: To explain the content of the CV (justifying negative factors like low grades, fast graduation, etc.), to explain your motivations for the work, and how your experiences shaped you and your academic career. This means that all the minutiae of prior work are not relevant, but instead, it should be clear what role you had and that you truly contributed meaningfully to the research. This makes the SOP unique to you. Only you can write a meaningful SOP for yourself, because it discusses your research and motivations over time.

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[1]I will replace this SOP with the SOP from the school I decide to attend.

That being said, clarity, flow, and the confidence conveyed make up a large part of the application, especially since it may be read only briefly. It should read confidently but humbly, and have a natural progression of thought. My temptation when writing about myself and my accomplishments is to either dismiss my work or to wax poetic on the virtuosity of my achievements. But this kind of writing usually has the opposite effect, since it casts doubt on how honestly you are writing. When performing in music, I have been told to "trust the work". Believe in yourself: you have made it this far. The same is true here.

The personal history is an even trickier document to write. It reads more narratively and should discuss your personal life and how it shaped you as a student and researcher. It should also speak to your ability to engage with your research community. After all, research is a group activity, and you should show that you will be a good co-worker as a PhD student.

I found the advice of my friends and my research community to be very useful. I highly recommend having as many people as possible read your application documents, even if it can feel a bit vulnerable.