

The Road to a Successful PhD Application

Disclaimer: This guide was written by Prof. Michael Beyeler, with input from faculty colleagues. It does not necessarily reflect the views of all CS faculty members and hiring committees. Following this guide does not guarantee admission to our program.

Introduction

Embarking on the path to a PhD in computer science is both exhilarating and demanding. As you craft your research and personal statements, remember that these docs are more than mere formalities—they are your voice in print, an opportunity to share your unique story, passion, and vision. While the process might seem daunting, remember that each revision brings you closer to presenting the most authentic and compelling version of yourself.

[CS@UCSB](#) gets about 500 PhD applications every year. So how could yours possibly stand out?

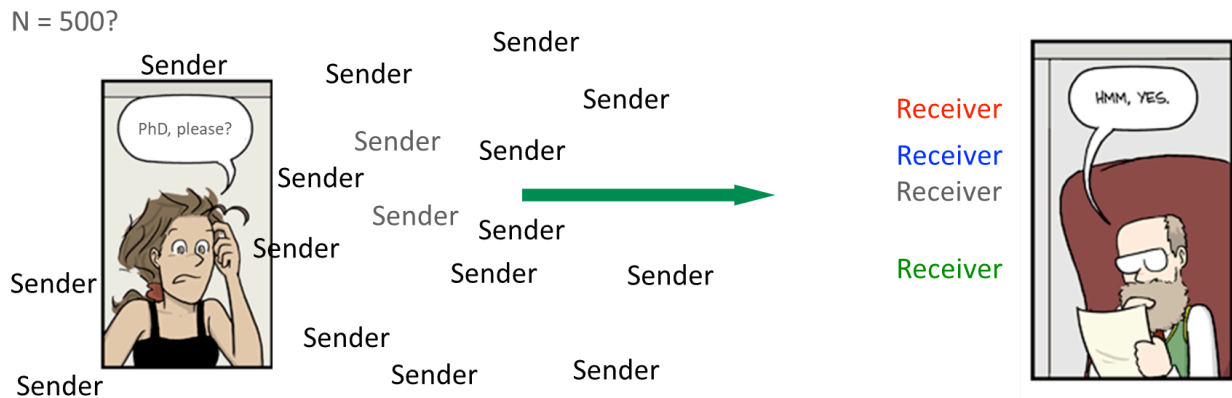


Fig. 1: Problem statement. Inspired by R.B. Huey (UW), with illustrations adapted from [PhD Comics](#).

Well, first of all, by taking advantage of programs like this, to get feedback on your materials. But more importantly, as you craft your statements, you'll want to put yourself in the shoes of the faculty members reading your application: their job is to identify the students who are most likely to succeed. PhD programs are long and hard; they require academic excellence, a certain level of independence, and grit (among other things). This means we'll be looking for indicators (clear signals hidden in the noise) that you could be successful. And what is the best predictor of your future success? Your past success.

In CS@UCSB, we have embraced a holistic review approach: Admission decisions are made by a committee of faculty members, rather than any individual professor. Whether you get in is determined not just by your GPA or which school you went to. Instead, every application is rated according to:

- **Academic preparation:** How strong are your grades? How broad is your skillset? How supportive are your letter writers?
- **Research potential:** Do you have previous research experience? What have you done with the research opportunities that were available to you?
- **DEI contribution:** Did you demonstrate initiative or leadership outside the classroom?
- **Program alignment:** Did you make a clear argument why CS@UCSB is the right choice for you?

However, not everyone has equal access to research opportunities, so it's important to contextualize your accomplishments. Don't be discouraged if you lack research assistant (RA) experience or aren't part of any fancy clubs. Use your statements to give context to your journey and explain (e.g.) momentary lapses in academic performance. Coming in with a 4.0 GPA and a published conference paper is certainly impressive—but it's even more impressive if you have a 3.5 GPA and some RA experience while working full-time and/or caring for a dependent. It's all relative.

Statement of Purpose

GradDiv [instructions](#):

“Give a brief statement outlining your reasons for undertaking a graduate program, your particular area of specialization within the major field, your past academic work, and your plans for future occupation or profession. Also include any additional information that may assist the selection committee in evaluating your preparation and aptitude for graduate study at UC Santa Barbara.”

The statement of purpose serves as a window into your scholarly pursuits, offering a snapshot of your academic journey thus far and charting the course for your future endeavors. It succinctly communicates your past research contributions, current inquiries, and long-term goals, providing the admissions committee with a clear vision of your intellectual passion and potential.

Do's

When crafting your statement, you should consider the following:

1. **Start strong:** Begin with a compelling introduction to your research interests. Clearly state the problems you want to address or your overarching research goals.
2. **Be specific:** Clearly define your past research, methodologies employed, and findings. Detail your future research plans and how they align with the department's strengths.
3. **Highlight relevant experience:** Detail the progression of your research experiences, highlighting any advances in responsibility or expertise. Mention any unique methodologies or perspectives you've used in your research due to your background. Describe experiences where you've collaborated on research projects and what roles you played.
4. **VERY IMPORTANT! Connect with the department:** Mention specific faculty members or labs you're interested in and explain why. It shows you've done your homework and are serious about CS@UCSB. *This includes making sure that the lab you're interested in is accepting new PhD students this cycle.* Once identified, make sure to indicate these faculty members as “Faculty Interests” in your application. Strike a balance between mentioning a single professor (what if they aren't hiring after all?) and selecting every single faculty member in the department. **Important note:** If a professor has “Teaching” in their title, they cannot formally accept PhD students at UCSB (so do not select them as Faculty Interests).
5. **Proofread and revise:** Ensure clarity and avoid excessive jargon. Avoid typographical errors, and grammatical mistakes. Tailor your research statement to each program.

Don'ts

When crafting your statement, it might be a good idea to avoid the following pitfalls:

- **Vagueness:** Be specific about your role in projects and your contributions. Science is often teamwork, so *do not* overinflate your contributions (this may become obvious when reading the faculty advisor's recommendation letter), but *do* be specific about which tasks you completed independently, and to which other tasks you contributed.
- **Overly technical language:** While detail is important and you'll want to demonstrate that you know common technical terms, ensure that faculty from adjacent fields can understand your work.
- **Neglecting structure:** Nobody likes to read a wall of text. A well-structured statement with a clear progression of ideas will go a long way. Don't be afraid to use headings and bullet points.
- **Name-dropping without context:** Don't just mention faculty or labs in CS@UCSB; explain why they align with your interests and why you might fit in.

Personal History & Diversity Statement

GradDiv [instructions](#):

“UC Santa Barbara is interested in a diverse and inclusive graduate student population. Please describe any aspects of your personal background, accomplishments, or achievements that you feel are important in evaluating your application for graduate study. For example, please describe if you have experienced economic challenges in achieving higher education, such as being financially responsible for family members or dependents, having to work significant hours during undergraduate schooling or coming from a family background of limited income. Please describe if you have any unusual or varied life experiences that might contribute to the diversity of the graduate group, such as fluency in other languages, experience living in bi-cultural communities, academic research interests focusing on cultural, societal, or educational problems as they affect under-served segments of society, or evidence of an intention to use the graduate degree toward serving disadvantaged individuals or populations.”

Do's

For many, this is the hardest one to write. So it might not be the best idea to do it last-minute!

When crafting your statement, you should consider the following:

- **Begin with authenticity:** Start with a personal anecdote or experience that encapsulates your journey or the challenges you've faced, setting the tone for the rest of the statement.
- **Explicitly address the prompt:** Ensure you talk about economic challenges, family backgrounds, or any other unique life experiences. If your academic performance was affected by these circumstances (e.g., drop in GPA, school transfer), explain it here.
- **Highlight overcoming obstacles:** Emphasize instances where you've faced adversity and what you've done to overcome it. Show growth, resilience, and determination.
- **Showcase contributions to diversity:** Highlight any efforts or initiatives you've undertaken to foster diversity and inclusivity in your previous academic or community settings.
- **Discuss research interests:** If your research touches upon cultural, societal, or educational challenges affecting underserved communities, delve into why you're drawn to such topics and how you plan to make an impact.
- **Future goals & intentions:** Describe how you intend to leverage your graduate degree to benefit disadvantaged individuals or communities.
- **Proofread and revise:** Always review for clarity and coherence. Consider seeking feedback from mentors, peers, or writing centers to ensure you're conveying your message effectively.

Don'ts

When crafting your statement, it might be a good idea to avoid the following pitfalls:

- **Being overly general:** Avoid vague statements about diversity or inclusivity. Be specific about your experiences and contributions.
- **Sharing too much or overemphasizing challenges:** While it's essential to discuss challenges faced, you want to show how you eventually overcame them to get to where you are today.
- **Misrepresenting experiences:** Avoid embellishing or exaggerating. Authenticity is key. Share your true experiences and aspirations.
- **Ignoring structure:** A well-organized statement will guide the reader through your journey cohesively. Ensure there's a logical flow to your narrative.

Remember, this statement is a chance to show us how your unique experiences and perspectives will contribute to our commitment to diversity and inclusion.

CV/Resume

GradDiv [instructions](#):

“List your positions of employment or volunteer work/community service since high school, either full or part-time, including the hours per week worked and the nature/dates of employment/service.”

While most of your time and effort should be devoted to the two statements above, the CV/resume is another crucial part of your application package. It's true that a good CV will not get you the job — but a bad CV might jeopardize your chances. Do not just think of the CV as chronicling “the course of your life”. If done well, it is a presentation of your education, experience, accomplishments, and scholarly pedigree. Committees will look for things that set you apart from other candidates. Also, its appearance tells the committee about your attention to detail and thoroughness. Make it easy on them by presenting your experiences in a clean style and by highlighting relevant accomplishments.

Do's

Although a quick web search will yield hundreds of websites telling you what makes a good CV, be aware that an academic CV can look very different from the one you use to get an internship in industry. The key elements of a CV that might get you on the shortlist for a PhD position include:

1. **Name and contact information:** Keep it short and professional, name and email address should be sufficient. If you have a personal website or (polished) LinkedIn/GitHub profile, link it.
2. **Education:** List your degree(s), majors, institutions, and dates of completion (or expected dates) in reverse-chronological order
3. **Honors & awards:** If you were selected for something based on your academic performance — this is where you list that. It can include Dean's List, Distinction in the Major (Honors Thesis), Pell grant, McNair's fellowship, travel grants, stipends, etc. This is not the time to be modest.
4. **(Research) experience:** List any academic (research-y) positions held, location, and dates in reverse-chronological order. Provide a short description of your role using active verbs:
 - a. Purpose: What did you study? (1 sentence)
 - b. Results, accomplishments: What did you contribute/accomplish? (1-2 sentences)
5. **Publications:** List any conference/journal articles where you are listed as a co-author. Make sure to cite the work in its proper format (by using a reference manager like [Zotero](#) or by copying how the references appear on Google Scholar). Make sure to highlight special accomplishments (e.g., “(oral)”, “Best Student Paper”, “nominated for...”). Note that this is rare, but if you actually *do* have a publication, it will send one of the clearest signals that you are ready for a career in science. If your work is not out yet, label it accordingly (and provide a [preprint link/DOI](#) wherever possible):
 - a. “under review”: the paper was submitted and survived the “desk rejection” phase, meaning it is currently in peer review
 - b. “in revision”: the paper has passed the first cycle of review and you are due to send revisions (typical for journal articles)
 - c. “in press”: the paper has been formally accepted for publication, but is not out yet
6. **Contributed presentations/abstracts:** If you have gotten an abstract accepted to (e.g.) [SACNAS](#) or given a poster presentation, list it like a publication (authors, year, title, venue) but in its own section. This can include conference & school presentations (e.g., honors thesis)
7. **Professional/outreach activities:** If you have been part of a learned society, college club, or otherwise been engaged with the community, list your experiences here (e.g., [WiCS](#), tutoring). Make sure to include your title/role and years served. You can also structure it like your research experiences by providing short sentences using active verbs to clarify your contributions

Don'ts

General:

- Admissions committees aim to be fair and unbiased, but implicit biases can still play a role. To keep the focus on your qualifications and achievements, avoid including details like your ethnic identity, political affiliation, sexual orientation, or personal hobbies—unless they are directly relevant to your story or accomplishments:
 - For example, if your identity is central to a leadership role, like serving as president of an LGBTQ+ club, or it highlights a unique perspective that aligns with your academic goals, including it thoughtfully can strengthen your application
 - Adding pronouns is a personal choice—include them if it feels meaningful to your identity or aligns with the story you want to share, but it's not a requirement. Ultimately, the goal is to present a focused, compelling application that showcases your strengths
- Avoid including hollow assertions about your character, like “exemplary team player,” “highly motivated problem solver,” or “extremely effective communicator.” If these qualities truly describe you, they should come through naturally in your statements and CV
- Stick to clean, professional formatting—don't use *Comic Sans*, overly *fancy fonts*, or excessive graphic design
- Avoid acronyms and abbreviations that may not be obvious to everyone reviewing your file
- Do not include GRE scores, as CS@UCSB does not require them

Name and contact information:

- Do not include a headshot picture of yourself, your marital status, or any other personal information (e.g., birth date, social security number) beyond your contact information
- Use a professional email address, not HottieWitABodi69@hotmail.com
- A LinkedIn or GitHub profile can be effective, but make sure it is actually populated and looks professional. Do not include it if it is empty or reveals too much personal information

Honors & awards:

- Do not list awards that aren't merit-based (or are something that everyone in your class got)
- Do not list non-academic or otherwise revealing awards (e.g., Winner of the 2023 SoCal Hot Dog Eating Contest). However, if you placed 3rd in the Olympics, you might wanna mention that

Experiences:

- Do not include your summer job at e.g. Walmart, unless you completely redesigned their point-of-sale system or have no other experiences to list
- If you include a list of programming languages you are familiar with, do not just list their names or use an arbitrary scale to indicate your level of proficiency (e.g., Python ★★★★★☆). Instead, give specifics (e.g., Python: 3 months of full-time experience, JavaScript: CS-24 F'22)

Publications / presentations:

- Do not include papers that are “in preparation” or “submitted”, unless there is proof that they actually exist (e.g., by linking a preprint or uploading the manuscript)
- Do not “double-dip” on your publications/presentations. For instance, a poster at SACNAS is either a “poster presentation” or a “published abstract”, but not both
- Similarly, do not list abstracts under “Publications”, or pretend like your “Extended abstract” is a full paper. Either have a global list of publications and label each work appropriately, or present them under different headings

General Tips

- Make sure your name is mentioned in the header or footer of each statement. Admissions committees go through a ton of applications, so it would be a shame if they like your statement but forgot or can't figure out who wrote it.
- Keep the layout lean and mean. Whitespace is your friend. You can use bold and italic text to highlight important information, but use it sparingly and consistently.
- Refrain from using large language models (e.g., ChatGPT) to craft the final version of your statements. However, it is a good idea to have at least one other person (e.g., advisor, career counselor; not necessarily your friends, unless they're ready to be blunt) critique your statements.
- Make sure to indicate the professors you're interested in working with not just in your statement of purpose, but also under "Faculty Interests" on the GradDiv application form. Professors are busy people, and some may use the "Faculty Interests" field as a search tool to quickly identify the relevant applications. You don't want them to miss yours.
- Proofread your statements to eliminate typographical errors.
- US citizens and permanent residents may apply for a [fee waiver](#).

Additional Resources

Statements:

- GradDiv instructions on how to complete the online application:
<https://www.graddiv.ucsb.edu/how-apply/how-complete-online-application>
- GradDiv FAQs for applicants: <https://www.graddiv.ucsb.edu/how-apply/faqs-applicants>
- UC tips & tricks: <https://graduate.universityofcalifornia.edu/applying/statement-of-purpose.html>
- UCLA "Steps to Success: Writing a Winning SoP":
<https://grad.ucla.edu/asis/agep/advsoystem.pdf>
- UW guide on writing statements:
<https://careers.uw.edu/wp-content/uploads/sites/25/2016/06/Research-Statements.pdf>
- Penn State guide with example statements:
https://bpb-us-e1.wpmucdn.com/sites.psu.edu/dist/6/65498/files/2017/10/2017_Reserach-Plan-and-Personal-Statements-1-1ckpsea.pdf
- Psychology study on what not to do/write in your research and personal statements:
https://psychology.unl.edu/psichi/Graduate_School_Application_Kisses_of_Death.pdf

CV:

- <http://chronicle.com/article/The-Basics-of-Science-CVs/46275>
- <http://chronicle.com/article/From-CV-to-R-sum-/44712>
- <https://career.berkeley.edu/phds/PhDCV.stm>
- <http://seaver.pepperdine.edu/careercenter/services/jobsearch/resumes/resumes.htm>

Changelog:

- v1.2.0, Oct 2024: Added several clarifications, a disclaimer, and updated information (MB)
- v1.1.0, Nov 2023: Added additional general tips and incorporated feedback from Prof. Chandra Krintz (MB)
- v1.0.0, Oct 2023: Initial commit detailing do's/don'ts for statements/CV (MB)