

Advice to Graduate School Recommendation Letter Writers

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First version: 2008-03-25. Revised: 2008-03-26 (thanks, Kathi Fisler).
Revised: 2010-10-21, 2010-11-20, 2012-05-04.

Some years ago I was talking to a visiting scholar who was a faculty member in a foreign country. I asked her why letters from her country seemed to be so uninformative. She pointed out that there, faculty never *read* letters: they only write them. Even graduate students are admitted purely on the basis of test scores.

The facts were hardly surprising—after all, this is the system I grew up with in India—but after hearing the way she put it, the proverbial bulb lit up. If you never evaluate letters yourself, how would you know what letters should and shouldn't contain? The feedback—admission decisions—is seemingly random, and therefore of little use. Hence this article.

Disclaimer: This is an extremely personal opinion. It doesn't represent the views of my department or my university. More importantly, many faculty may disagree with the opinions here, so use them with caution! [Feedback welcome](#).

What this document is about: Writing effective recommendation letters for PhD students applying to computer science PhD programs in the US.

Whom this is for: Letter-writers who are unsure of what makes for a good letter. This may also help students prepare better dossiers to give their letter-writers. (A brave student might even point her letter-writer to this article.)

Also read: Mor Harchol-Balter's comments, Michael Ernst's advice.

Why Letters Matter

Does anyone read the letters at all? We do, rigorously, sometimes as carefully as we read a research paper: pen in hand, circling comments, annotating margins, noting what the letter did and didn't say.

In fact, letters are so important, even a bad transcript can be offset by them. I know a student who got into a fine graduate program with just a 2.67 GPA. This is because his 2.67 was special: he aced hard classes and got bored in easy ones. His letters presumably said so, and illustrated this with several anecdotes. So, not every 2.67 is equal, and your student's may be of just the right kind; but we won't know that without your letter.

My Constraints (or, The One-Minute Rule)

When I'm on the committee, I try to read every application; when I chair it, I make sure I do, some multiple times. That's many hundreds of applications in under a month. Factor in lots and lots of late letters, classes, etc., and it's clear I have to work pretty fast.

For the first pass—deciding whether the application deserves more time or not—I can afford to spend no more than about 6-7 minutes per application. (Keep in mind I've read maybe a few thousand applications, so I've had practice.) If I decide the application is promising, I may spend over half an hour (in some cases, days!) on it. But in those first 6-7 minutes, I have to:

- eyeball the student's research record
- form a summary of the transcript
- glance at the standardized test scores
- determine whether the statement is promising
- get the gist of 2-3 letters of recommendation

In practice, that means I have about one minute to devote to the first reading of your letter. Now think about whether your letter works in this context. (For instance, some letter writers put a big, prominent paragraph of boilerplate legalese at the beginning of their letter, which I have to read before I realize it's irrelevant. Could you have buried that in a postscript? Was that the best use of my minute?)

Call this the One-Minute Rule and write, read, and re-read your letter against this rule before sending it in.

Be Concrete

If you take away just one piece of concrete advice, let it be this.

The single biggest problem with most letters is that they are filled with abstract generalities and infinitives. If we don't know you or your institution, we can't judge what any of these statements mean relative to our standards. Always consider the illustrative anecdote:

Due to deadline pressure, I asked him to grow a pumpkin in just one month. As you know it takes over 100 days to grow a pumpkin, but over the weekend he devised a new method to accelerate their growth. On Monday morning I arrived to find not just a pumpkin but a steaming, flavorful pie.

Anecdote about acts of raw coding are only so helpful in understanding research potential, but they're better than nothing (see the section on Corporate Letters, below). An extra book or paper they read, *and demonstrated understanding of* (again, be concrete about why you believe this), goes a long way.

Triangulation and Credibility

When we read a letter we're supposedly evaluating the student, but we're actually evaluating the letter-writer too. What I care about is not only what you think, but also what I think of what you think. If I don't know you, I need to calibrate you.

Of course, sometimes information can hurt. If you praise research that is no harder than what we assign our first-year undergraduate students, that tells us a lot about your program, but not a lot *positive*. I saw precisely such a letter back in about 2002; to this day, I can name the college (and the student...). Until that program becomes a whole lot stronger, I wouldn't want to admit anyone from it.

If you've been holding back praise, tell us: If you haven't written a letter this strong since 1998, and you've written two dozen letters in that time, it helps for us to know that. Of course, be honest. If we take you at your word and your student proves to be significantly weaker than your letter, we won't trust your future recommendations.

It also helps to know your track record. Especially if you are a professor at a lesser-known university, tell us where your past graduates have gone. Even better, tell us where they are now (maybe the lack of name-recognition for your school means the students didn't go to well-known places initially, but if they did well and are now placed in good positions, that's good to know). Remember to compare *this student* to that population.

Finally, tell us a little about your background. A brief para of bio-sketch never hurts. If you publish papers, tell us where. But keep it short: the letter is about the student, not you!

Ultimately, remember two things:

- Your most valuable resource is your credibility. If you are a credible letter-writer, we will take you at your word and, if one day you tell us about a stellar student, we will do everything we can to make room for her. But credibility is one-way: hard to acquire, easy to lose.
 - You can't get a student in, but you can make a student not get in. That is, there is only so much you can say to get a student admitted, but if we come to distrust your letter, your *next* student is going to have a much harder time getting in. For “you”, substitute your institution also.
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Reporting on Research

At a highly-competitive university like Brown, we want to know the student's research potential. The best assessment of this is what they have already done. If you are their research advisor, you have a special obligation to them (and to us) in your letter:

- describe their work in your own words
- tell us what the student's contribution was
- tell us whether it succeeded or failed
- if it's ongoing, tell us why you think it will succeed

We rarely expect the ideas to have *originated* from the student, but we would like to see signs that they took ownership of the project, improved it in some way, refined the idea, and so on. Finally:

- put any publications in context

Students don't always know how to do this. If you published a paper on the work, tell us about the quality of the venue. In particular, students are poor at telling different *kinds* of publications apart (tech report from conference poster from research paper) and may even try to hide the distinction (I've seen this happen). Help us understand what they really accomplished.

If you run a summer research center, you may get bombarded with letter requests from each of your students. I have seen such people write perfunctory one-paragraph letters. These hurt students, and are ultimately

unethical. Someone gave you money to run that center; when you asked for it, you took on an obligation. Fulfill it, or else get out of the way. There are plenty of others who will gladly put that money to better use.

Reporting on Courses

Naturally, your most significant contact with the student is likely to be in courses. Yet what could be a rich source of description is often the poorest: Mor Harchol-Balter reports that at CMU, they call a certain class of these “DWIC” letters (“did well in class”), which are effectively useless.

Give us context. What textbook did you use? How much of it did you cover? Did the student take it earlier than usual?

Don't just report the grade; put it in perspective. How many students got that grade or better? If your transcript isn't nuanced (e.g., at Brown we give only letter grades with no +/- decorations), fill it in. Did they do an exceptional job at something? (Tell us what they did!) Were they biased towards some aspect of your class? (For instance, in my programming languages course, some take much better to the theoretical aspects, while others prefer the systems work. The transcript won't reveal this, but it's extremely valuable information for a professor trying to decide whether or not to recruit a student.)

Reporting on Personality

This is tricky, but it can help a potential advisor assess how good a fit the student will be. Some advisors work best with quiet, shy students, others with boisterous ones. Be as honest as necessary. For instance, I've had the pleasure of working with numerous exceptional students, but a few have had more peculiar personalities than the norm. In such cases, I write a “care and feeding” section (this goes back to the bit about credibility). I have never yet known this to be held against the student.

Corporate Letters

An important special case is the corporate letter: when you, the letter-writer, work in industry and have no academic affiliation. Many corporate letters (like many academic letters, but more so) tend to be vapid, clearly written in

a different culture and for a different audience. Unless they actually did academic research with you, here are some suggestions for improving them.

A common mistake is to focus on teamwork. This is important even in academia, but often this is the *primary* focus of the letter, which makes it less valuable. Of course we care about it, but it's secondary to their technical skills.

- Tell us if they learned something particularly quickly, mastered a complex technology, or solved a problem others were stuck on. Give us a paragraph of details.
- If you have a concrete reason to evaluate research potential, do so concretely. Otherwise, don't bother.
- Give us a brief bio-sketch, including educational qualifications.
- Put the applicant in context, and tell us the context. It's fine to relate it to your own student days, or to your experience hiring students. E.g.:

Compared to the students I studied with at Cucumber and Melon University, and the ones I now recruit from there, I would put him in the top 10%.

Don't Personalize (or, How to Personalize)

Don't waste your time personalizing the letter for each school, unless you *really* personalize it. I'm not impressed by your mail-merge program. Absolutely nobody cares that you don't list Brown's postal address at the top of the letter. Spend that extra minute or five making the letter better. Besides, invariably, you will mess up: every year we get a handful of letters stuffed in the wrong envelope. (Just because they're good enough for Harvard doesn't mean they're good enough for *us*! [I hope Greg Morrisett doesn't read this.])

Of course, you could *really* personalize a letter by writing a paragraph specific to an institution. But only do this if you really have something to say. For instance, I sometimes write,

Hey folks—Eva Echidna is more dedicated than Jonas Jackaroo and every bit as smart as Walter Wallaby, both of whom are past students of mine who appear to be thriving in your program.

You could do this with LaTeX or Word macro trickery, but you know what I do? I just write the paragraph by hand. It's quicker, easier, and even has the feel of authenticity, because everyone knows professors can't afford

machines that simulate hand-writing: only alumni offices have *that* kind of money on campus.

A simpler, but also important, level of personalization is to take into account the quality of the target institution. Sometimes, students apply to schools well beyond their quality, and you may not be able to talk them out of it (nor, perhaps, should you; they're just exercising their freedom). You may consider having slightly different letters, one for each level of institution. A cheap way to achieve the same effect is to simply mark different boxes in the tables you're asked to fill in (e.g., mark them in a higher percentile for schools where you think they belong, and a lower percentile for places where they will be overmatched).

While we're at it, here's a great instance of customization gone wrong (the ellipses are mine, the rest is literal text):

It is my pleasure to recommend ... be admitted to the PhD in Computer Science program at Brown University. I am an associate professor in the Department of Computer Science, the University of ..., where I have taught for [THIS MANY] years.

Didn't even proof-read it, eh?

Ask Your Student for Help

Ah yes! Here's where I tell you to ask the student to write a draft of their own letter. Not.

Asking students to write even a draft of their own letter is one of the shabbiest practices I can imagine. Yes, I know, many otherwise respectable people do it (I've even had more than one letter-writer of mine—people I respect profoundly—ask me to). I've heard arguments about how it helps a student demonstrate professionalism, maturity, and so on. This isn't the place to explain why I'm completely unswayed.

So what do I mean?

I **tell my students** to give me a list of everything about them that they think is relevant. I explicitly tell them to brag (some students are shy and may not give themselves enough credit otherwise): filtering their input is my job, not theirs, and I say so. Sometimes I do get items that are over-the-top, but no harm done. Much more often a student will remind me of something they did that I had forgotten, but was well worth remembering.

In particular, for my top research students who are currently working with me, I have no shortage of information. But for the others, or ones I haven't worked with in a while, this helps immensely. Some item suddenly brings them alive after several years, helping me reconstruct forgotten details and provide an illustration or two.

Tell Us About Relevant Things That Didn't Happen

Sometimes the negative spaces also matter: a statement like

Despite my best efforts to persuade her to work with me, Eva decided to spend her second summer working for the Rocky Raccoon Corporation, a local maker of surveillance equipment. Because of this I cannot say much about her research skills, but I'm told she did good work there. Moreover, her experience in industry convinced her she would rather be in graduate school.

can, in some contexts, tell the reader a lot.

Help Your Students Form a Strategy

It's very frustrating to get three essentially identical letters. If you are the advisor (or even simply someone who thinks the student deserves to do well), take a little time to help students plan out their application strategy. Ask them who their other writers are, help them find writers who can highlight all their strengths, and identify pointless overlap. Summarize anything you think we should know about: e.g.,

I know that Eva did a superb project with Prof Dolfenfuss—I was blown away by the creativity of their work on intrusion detection for raccoons that raid pumpkin patches. She's told me she has asked Dr. D. for a letter, so I trust he will elaborate.

Just Say No

Don't write a letter because you're feeling badly for a student. We can tell from your letter, and it won't help the student one bit. Just say no. If you really care for the student, spend that time instead helping him find letter-writers who can better get across his talents. Heck, maybe he shouldn't

be applying to graduate school at all, at least not right now. A few minutes of your time may save him years of his.

Practice the Fundamentals

Mail the darned thing in on time! We don't begin to read applications until they are “sufficiently complete” to be worth the time. While you're crafting your prose for the Paris Review (and fidgeting with the details of your mail merge program), your student's folder is becoming close friends with the historic, 200+-year-old, pre-Revolutionary War dust in the corner of some office building at Brown.