2007 The Redbook

THE redbook

STANFORD CS 2007

Computer Science Graduate Students
2007

Dedicated to...

the incoming class of 2007...best of luck!

ACKNOWLEDGMENTS

TABLE OF CONTENTS

0.1 WHAT IS THIS?

The Redbook is the attempt of a few PHD students to pass on bits of wisdom and frank advice to newer students in the hope that the next generation avoids their missteps. It lives online at http://theredbook.pbwiki.com.

THE BASICS

1.1 THREE THINGS TO KNOW

1. Academia is a business, and graduate student is a job title. From Azuma: "Academia is not the Real World and does not work in the same way that the ordinary corporate world does. However, it is a business nonetheless and as a graduate student, you must treat it that way. Graduate school made a lot more sense and became much easier for me after I realized this. If you think of graduate school as an 'Ivory Tower' free of politics, money problems, and real-world concerns, you will be severely disappointed."

2. Remember you're here to get a PHD. Especially if you come straight from college, the apparent lack of requirements may cause you to not to take school seriously. We're not saying don't have fun, just don't have *too much fun.* Have a plan about how you're going to complete your degree in a timely fashion.

3. Good advice can be gotten by chatting with senior graduate students behind closed doors, as they will be much more willing to be open and honest.

1.2 YOUR FIRST QUARTER

What should I be doing in my first few months at Stanford?

In your first quarter, *don't drift.* You should be studying for comps and finding an advisor. You may hear that

comps are "trivial" and you should not waste time studying for them because you're so smart you'll just pass them without effort. This may be true for some, but it's our opinion that you should study hard for comps. Forming study groups with other new students is a great idea. You may want to take a class the first quarter. Finding an advisor won't take all your time, and taking a class will help you meet new people. If you have weak comp areas, taking a class or two can help you pass out of them.

Getting comps over earlier is better. As time passes, you'll have commitments to research projects and paper deadlines. At that point, studying for comps or taking classes to pass them can take time away from what's important.

If you're not sure what area you want to be in, work with a professor for a trial quarter. Don't just attend meetings: working on an existing project with more senior grad students is a great opportunity to get mentored and learn by their example. (Try to pick a good project!). Take a lesson from other fields, which have students rotate through different labs in their first year. Even if you don't end up with that advisor, you've gotten research experience, perhaps credit on a paper, and a professor in the department who knows you. If you have difficulties later in the program, for whatever reason, having a professor who knows you and who will go to bat for you is key.

1.3 ADVISORS

1.3.1 Choosing an Advisor

The choice of advisor is by far the most important decision you'll make (by an order of magnitude).

It will completely control your grad school experience and will affect your post-grad-school career as well, especially if you want to continue in academia.

OTHER STUDENTS' EXPERIENCES. The best way to find out what an advisor is like to is to chat with current members of that professor's group behind closed doors. They'll give you the real information about a professor, from inspiring tales to horror stories. Both exist. Ask them about the topics below:

FUNDING. When choosing an advisor, you need to understand their funding situation. Don't be afraid to discuss this candidly—it's the only way to avoid misunderstandings. Without funding, you will be supported by the department, which means you have to be a course assistant (CA). You don't want this to happen because CAships take a considerable amount of time away from research. A 50% CAship covers your tuition and stipend, but generally requires ≈ 20 hours per week of work from you. Although 25% CAships exist, the common wisdom is that you will be working almost as much as the 50% CA for less money. Other sources of funding include fellowships (Microsoft, IBM, NVIDIA, ATI) but usually the department controls who gets to apply for these fellowships (or it is limited to one applicant per professor).

Questions to keep in mind: Are there active grants that can support your specific research project as a 50% RA? How many quarters of support are these grants? Are they renewable? What is the criteria under which they can be renewed? Are your professors actively writing more grants for the future? If not, will they help you write a grant (it's good practice, in any case)?

It's bad to be forced into CAing quarter after quarter, try-

ing to produce enough research to keep your advisor happy. Have a candid talk with your advisor so this does not happen to you. However, if this does happen to you, and you still end up graduating, a good way to turn those lemons into lemonade is to make sure you graduate with a Distinction in Teaching.

ADVISOR AGE. A young (i.e., pre-tenure) advisor will be hungry for results and will be closely involved with your work, which is a good thing. They are likely to closely monitor the relevant conferences and will be well aware of related work. The downside is that they may fail to make tenure, which could screw up your grad school career.

An old advisor who has already made their mark has lots of experience and contacts. They are a safer bet than a pre-tenure professor since they aren't going anywhere, and many have reliable funding. However, a common experience among students of older, already successful professors is that they aren't hungry for success anymore, and will be only superficially engaged in the research of their students, leaving the students feeling adrift.

RECENT PUBLISHING RECORD. If you want to pursue an academic career at a top-tier school, you'll need several high-quality first-author papers. Look at how many papers the professor's current students have published in the past few years, and at what conferences. This is an indicator of where the professor stands with respect to the earlier point: are they still hungry to achieve success, or are they resting on their laurels?

Aside from this question of hunger, professors are also just different from each other with respect to the way they approach conferences; some publish papers three times

more often than others. Of course, paper quality matters more than quantity, so use Citeseer, ACM Digital Library, or Google Scholar to see how often the professor's recent papers are cited, as an indicator of how well their work is received by their research community.

ADVISING STYLE. Many will suggest you ask if a professor is "hands-on" or "hands-off." Unless you lean strongly toward one or the other, stick to other metrics when picking an advisor. Be wary of professors at either extreme (talk to senior grad students).

GROUP COMPOSITION. You'll want an advisor with several current students, since their body of knowledge and experience will be of great benefit. Many groups work a little like an apprenticeship: young students join existing projects to learn from the older students, and as they get more experience they will strike out in their own directions.

If all the current students are near graduation and there are no younger current students in the pipeline, this could be a problem.

Be wary of those advisors with really large groups (15+ students), since you'll get much less face-time than with an advisor with only 5–10 students.

INDUSTRY CONTACTS. If you are in a systems-related field, then industry contacts are key, since it's often hard or impossible to do compelling research in a systems area without collaboration with industry partners. Do the professor's students work for companies that excite you? Do the advisor's current students often do consulting or summer internships in industry?

1.3.2 Switching Advisors

It is not recommended to switch advisors after your second year, but it has been done. Switching within or immediately after your first year is common and should not be feared. If you want to switch, just have a candid conversation with your advisor; be honest and try to leave on peaceful terms.

1.3.3 Talking with your Advisor

The role of your advisor is to provide 'advice'. If you disagree with a decision he/she has made, you should talk to him/her about it. Disagreements may come in many forms (research direction, summer plans, or even funding).

You should talk to your advisor often, at least once a week. There's a number of topics you may need to talk about during your PHD:

- *Be explicit about expectations.* How often does your advisor expect you to publish? Specifically, what about the upcoming FOO-BAR conference? It's best to get your advisor to be upfront about what he/she expects than to disappoint.

- *Make meetings count.* Come to meetings prepared with a plan of what to talk about, questions, etc., and leave with a clear idea of what you'll do before the next meeting.

- *Paper author order.* A number of groups have strife because there is no clear policy, managed by the advisor, to control how authors are ordered on papers. Don't wait until the paper is completed to

discuss author order—discuss it with your advisor ahead of time. Likewise, working on projects with students on the same graduation schedule as you may be problematic, as you will both want first authorship on the same paper. Working with junior students (when you are a senior student) will result in fewer problems.

- *Theses from large projects.* Large, multi-year projects can involve an unknown number of graduate students, but usually produce a finite number of theses. If you get involved in one of these projects, be sure to discuss what part of the project can be used for your thesis. If that can't be determined within the first few quarters, you may want to find a new project.

1.4 FUNDING

Funding is vital; you should have candid talks with your advisor about it, so you can ensure support through your entire graduate career with minimum distraction from your research. Your happiness is often correlated with funding (and also with progress). Grad students with funding tend to be pretty happy, but without funding, grad life can be pretty miserable. Most students find their thesis topic by working in an area or project that provides them funding.

Every quarter you need 50% of support. Funding comes in percent units, usually 50% or 25%. Ideally you are a 50% Research Assistant (RA), funded under a grant from a government agency (DOE, DOD, NSF) or a private organization, and working on an interesting topic.

You may be lucky and have a fellowship from Stanford,

NSF, NDSEG, Hertz, or some other group that covers you for three to five years. If you're really lucky, you have two fellowships, one deferrable, like NSF and NDSEG: defer NSF for two years, and get five years of coverage. If it's your first year and you don't have a fellowship, you should apply for NSF, which still open to graduate students in their first and second year. There are also one year fellowships from companies like Microsoft, Intel, ATI, NVIDIA, and Yahoo.

If you're not on a grant or fellowship, then you're a Course Assistant (CA). Unless you're going for the Distinction in Teaching, this can be a bad situation. Being a CA requires ≈ 20 hours a week of work before you've done a single minute of research. Do not be a long-term CA. You will be unable to do enough research to keep your advisor happy, and so you continue on as a CA, in a negatively reinforcing cycle. If you have to CA, ask the senior grad students what are the good courses to CA that don't require 20 hours of work. A rule of thumb might be to avoid intensive programming project courses like Operating Systems.

1.4.1 Grants

Grants are given to your advisor and your advisor employs you as a RA. It is rare, but not unheard of, that a professor has cut a student's funding, although I believe they are required to give a one quarter notice so that you have time to scramble to find other funding. This is something that should not happen to you if you are having candid talks with your advisor about your progress.

You should know what grant you are on, if it is renewable, and what the criteria is for renewal. You should also know

if your advisor is applying for other grants from the NSF, DOD, DOE, or whomever. Try and help out on the grant writing. If you want to be faculty in the future you should know how to write a grant, in any case. If your advisor is not writing a grant, you should be concerned. In this case, ask your advisor if they will help you write a grant. You can go to the NSF website and look at the calls.

1.4.2   50% vs. 25% CA

Avoid a 25% CA (Course Assistantship), as you usually do nearly the same amount of work of a 50% CA (which fully funds you for the quarter). As a 25% CA, you'll need to find another source of 25% funding (possibly a 25% RA with a professor who is not your advisor).

1.4.3   50% vs. 25% RA

Most RAships are 50% (except in the summer, when they are 90%, which is 1.8× your normal salary). Usually you are an RA under your professor. Sometimes people take an RA position with someone besides their professor to have support. If this happens to you, you can minimize the impact on your research by finding an RA position that is somewhat related to your research (you can kick-start a collaboration between your advisor and another professor). Sometimes, an RA under another professor may have you writing code for some group in the university that needs it. Students in the EE department tend to know a little more about doing RAships not for your advisor, so try asking one of them.

1.4.4 Fellowships

Fellowships can be a double-edged sword. It's great to have long-term funding with few or no strings attached, but the lack of quarter-to-quarter accountability for funding can often lead to drift, especially in the case of a hands-off advisor. Celebrate, but beware! A fellowship can enable you to work with the advisor you want to work with, because advisors are usually very welcoming of a student that comes with funding.

1.4.5 Consulting

You can officially consult for other companies for one day a week. It's a nice way to make money and may not require too much time on your part.

1.4.6 Summer Internships

Internships can be a great source of extra spending money, a valuable way to hook into industry research, and a way to get ideas for a thesis. Spend at least one summer at an industry research lab. We know of students who took their summer internship at an industry research lab (e.g., Microsoft Research) and turned it into a thesis. Your advisor may have contacts, and can recommend internships for you. Some good places are: Microsoft Research, Microsoft Research Asia, Yahoo Research, Intel Research, HP Labs, PARC, or your advisor's company.

1.4.7 Unrestricted Funds

Grants are reserved for particular purposes and projects. So, you (usually) can't get money from the FOO pot unless you work on the FOO project. However, your advisor may have some unrestricted funds, and if you are lucky, they may be able to cover you. Unrestricted funds are often coveted, so don't rely on this.

1.4.8 TGR

If you're in your last year, you can make your fellowship money stretch father by going TGR, which reduces the amount of tuition. However, you can technically only stay on TGR for a year, though this rule is probably flexible.

1.4.9 Graduation Quarter

If you just need one more quarter, the department allows you to register for a graduation quarter which costs very little ($100). If you've saved up some money and really are on your last quarter, you can take this option. Be absolutely positive it is your last quarter, because if it isn't, you'll have to pay a penalty to the department.

1.5 COMPS

1.5.1 Study for Comps

No matter how much they say you should not study for Comps, you should really form study groups (to get to know other first years) and study as hard as you can for

Comps so you can get them out of the way. You don't really want to re-take those undergraduate classes again. Not getting them out of the way early simply means that next fall, when you're working on research, you're going to have to take time to study for them again.

Another point of view: Comps are not nearly as important as finding an advisor. Focus on Comps only if you know who you are working with and are confident you will have funding and an advisor next quarter. Wasting all your time on Comps at the expense of research is a terrible idea unless you have an outside fellowship or you have already convinced a professor to take you.

1.5.2 Take the Class

Also, if you know you have a slight chance on passing a Comp, take the class if possible in the fall. Often people pass the Comp and can drop the class even though only about half of the class will have been taught when Comps begin. If you don't pass the Comp, you can step things up in the class and get the required A-minus to get out of the comp.

1.5.3 Watch the Lectures

Alternatively, if you don't want to take the class, it is useful to watch the online lectures. This is especially useful if the person who is writing the Comp is actually teaching the course that quarter. For example, if you happen to find out that Prof. Koller is writing the AI comp, and she is teaching 121 that quarter, it will probably be useful to watch the online version of her lectures.

http://scpd.stanford.edu/scpd/default.htm

1.5.4 Read the Book and Take Practice Exams

It is entirely possible to pass some Comps by just reading the associated book. One great example is reading Michael Sipser's short book and passing Automata.

1.5.5 Form a Study Group

This is a great way to meet other first years. The 2006–2007 first-years formed study groups and met weekly to keep each other motivated, and also posted relevant materials on a wiki:

http://phdcomp.pbwiki.com/

1.5.6 Take the Comp Anyways

Sometimes it helps with the curve if more people sit for a comp. So even if you don't know very much about the Comp, sitting for it may help your friends, and vice versa.

1.6   HOW TO DO RESEARCH

An undergraduate degree is about doing well in classes: someone tells you what to do and how to do it. Graduate school is very different. You are solely responsible for setting your daily schedule, finding the right project to work on, and figuring out how to accomplish it. This uncertainty may be difficult to adjust to and can contribute to a lot of stress. There may be long stretches of time when it is unclear if your work will be fruitful.

Here are some tips on how to avoid this uncertainty...

1.6.1 Read Papers

It is critical to read *lots* of papers in your area, and more importantly, in your particular research topic. What if you don't like to read papers? Then at the very least, *skim* lots of papers.

1.6.2 Talk With People

Conversations make you smarter. They help you look at problems from different perspectives, hone your arguments, refine your terminology, explore alternative solutions, and uncover existing approaches. Chat with professors, other graduate students (even outside your area), and anyone else who will give you the time of day. Not only will this improve your research, but more people will know you and what you are doing. Make sure you are listening at least as much as you are talking.

Bounce your ideas off other colleagues. If they like your work, great. If not, ask them why and improve your work based on their feedback.

1.6.3 Be Goal Oriented

When deciding on research projects, be goal oriented. Do not waste your time working on projects that lead nowhere. Ask yourself, "Will this project lead to a paper? Which conference will you submit it to? Is it a chapter in the thesis?" Working on a project simply because it's cool is not a sufficient reason.

1.6.4 Set Deliverables and Discuss with your Advisor

Usually a project will span weeks if not months or years. Often, students will be distracted and/or discouraged. Set weekly goals. Turn these goals into deliverables that you can show or discuss with your advisor and colleagues. If you're going the wrong direction, the early feedback will help you get back on track.

1.6.5 Time Management and Procrastination

Some (read: many) of us find it challenging to manage our schedules. If you really need to get work done, consider techniques to avoid time wasting. If you close your office door (or wear headphones), fewer folks will bother you. If your office is too loud, consider switching offices (or even working in the campus libraries).

1.7 QUALS

The milestone exam that tests the "depth" of your knowledge in your area is Quals. Some folks take it their second year; some take it their third. Ideally, you should pass quals your first time through. Officially, it's 100% OK to not pass your first time, and then pass your second. It's possible to take quals three or more times, but your advisor better be loving your research. There have been students who have left with a Masters after failing twice; other students have passed on the third try, generally based on if their advisor likes what they are doing or not.

In general, orals can be "better" than written exams: if you know something about the area, the questioner can

tease it out, whereas on a written exam there is no back
and forth. Definitely try your best the first time around
(form study groups).

1.8   THE THESIS

Theses vary between disciplines, and even advisors. Yours
should be modeled after other theses in your area: grab
some examples and discuss the structure with your advi-
sor. A rule of thumb that has been described (in Graphics
or HCI) is to have about 3 papers on a single topic, which
then become the 3 main chapters of your thesis. An effec-
tive strategy for initiating the process of completing your
thesis has been to present your advisor with an outline
of your proposed thesis. This allows the both of you to
discuss what, if anything, may be missing from your re-
search and can allow you to target your work so that you
can graduate in a timely manner.

1.8.1   Committee

You need to have a committee (see the PHD Bible) or other
source for composition and forms). Make sure your read-
ing committee will have time to read and sign your thesis.
It is better to have committee members who will be able
to give timely feedback about your thesis. You should
meet somewhat regularly with your other committee mem-
bers to update them about your progress. You don't want
them to be surprised at your defense about the direction
you are taking for your thesis! Better for you to hear that
they don't like what you're doing 12 months before your
defense than the day of...

1.8.2 Defense

Ideally your advisor shouldn't let you schedule a defense if you aren't ready, but there have been students who have not passed the orals, even though their advisor let them defend. Most people usually defend after having written some (but not all) of their thesis. Scheduling your orals should probably be done two to three months in advance. Don't forget to bring food. Catering means one less thing to worry about.

1.8.3 Writing

Thesis lengths vary from under a hundred pages to as long as several hundred pages. Some advisors are comfortable with a "stapled thesis," which is merely the papers you've written with transition paragraphs between them. Other advisors want the thesis to stand on its own as a treatise on a subject; this requires some amount of rewriting.

HEALTH AND HAPPINESS

2.1 YOU ARE AN ASSET

A graduate student costs more than $100K/YR to fund, including tuition, stipend, office space, computing equipment, and travel expenses. You are an enormous investment. A graduate student who is unable to do research (due to RSI, depression, or other physical or mental health issues) is a waste of that money. Your advisor is likely to accommodate your needs where your well-being is at stake. Recognize your value, and put your health above all else.

2.2 MENTAL HEALTH

A PHD can be a high-stress, low-social interaction environment that can lead to a variety of mental issues, including anxiety and depression.

A way to be more involved in Stanford life is to take/audit fun classes such as languages, photography, singing, piano, or art. Having something to go to that is scheduled every week can provide structure and be a nice way to make friends. Playing intramural sports (e.g., Basketball, Soccer, Ultimate Frisbee) or joining one of the larger clubs might also be a good idea: Taekwondo and Wushu provide a great team experience and has grads and undergrads. The Stanford Outdoors clubs are a good choice as well. Some grad students do various kinds of dance: Viennese Ball or the SBDT.

Keep in mind that if you're stressed or feeling worried

about the uncertainty of grad school, other students are as well. You're not alone in this. Talk to other students about it. It will make you feel better. If you feel you need more help, Counseling And Psychological Services (CAPS) is an arm of Vaden Health Center designed to help with mental health.

The PHD Comic Strip has a forum populated with graduate students from around the world, which can be a great source of support:

http://www.phdcomics.com/proceedings/

2.3   PHYSICAL HEALTH

Although we aren't medical doctors, we think that regular exercise is great for reducing stress (which is pretty high in a PHD program) apart from its other benefits. Take advantage of the Stanford athletic facilities: apart from the gym, there are classes in tennis, swimming, climbing, yoga, golf, volleyball. You also happen to be in the Bay Area where there is great skiing a few hours away, surfing in Santa Cruz, hiking and climbing in Yosemite, and good weather year round.

You should also eat right. The free food you find around Gates is probably not the most healthy...

2.3.1   RSI

You probably do a lot of typing, and you may or may not develop RSI. Educate yourself about ergonomics. Consider getting an ergonomic keyboard (Kinesis Maxim or Goldtouch). Some students use Workrave which mon-

itors typing and mousing behavior and reminds you to take breaks every once in a while. Students report that this has significantly improved their RSI. The defaults are if you're already experiencing pain (and you should obey the limits set by the program). If you just want to be preventative, set the defaults to be a little less strict.

2.4 MAKING FRIENDS

Generally, you will start hanging out with folks in your incoming class, and in your research lab. If you would like to meet folks outside of CS, there are many opportunities. You can take classes in Music, Foreign Languages, Physical Education, and Social Dance. One way to meet many folks is to become a CA (Community Assistant) in your graduate housing complex. There are also outdoors clubs (Snowboarding, Hiking, Running).

Meet more people early on in your career, as you will be busier as time goes on.

DEPARTMENT

3.1 PAPERWORK AND PITFALLS

There are several types of paperwork that matter, and they generally deal with getting paid and getting your PHD milestones complete.

When you pass enough Comps, you should file your candidacy form, so you get a pay increase. If you have some strange advising situation (like your advisor is not natively CS or has a joint appointment with some other department), make sure it goes through.

Before each quarter, make sure you have funding. If you are RAing, you should sign a form with your advisor's admin.

When you near the end of your PHD, you will need to fill out a form for your Reading Committee, and one to schedule your Oral Examination.

Within the last year, you can go TGR to save your lab money.

Here are where you can find many of the forms:

http://registrar.stanford.edu/shared/forms.htm#GradStud

3.2 LOUNGE

There are many elected positions, but some worth mentioning are the lounge committee members. *You*, the student body, are in charge of the lounge. Make sure there are ping-pong balls and foosballs (money is available from the department) and that the lounge stays tidy.

LIFE AFTER GRAD SCHOOL

4.1 DOING SOMETHING ELSE

About 10% of PHD students, in our experience, drop out to pursue other interests, although we don't know the official statistics. They might leave with a Master's degree or without. There are legitimate reasons to stay or to go. If you want to be faculty, or if you want to do research in the future, you need a PHD. However, you may be unable to work with your advisor, unable to find an advisor to work with, or doing research may not be what you expected or want. Be aware that there is an opportunity cost to staying in graduate school since we can make very good salaries working in industry (if you estimate a salary as $100K and a graduate student stipend as $30K, $70K is what you're "giving up" to be here). There is also a cost to leaving graduate school. Be clear with yourself about why you are still in the program or why you want to leave. If you do leave, try not to burn any bridges.

4.2 BECOMING FACULTY

About 40–50% of Stanford PHD graduates go on to faculty careers. This is a lower percentage than at other schools, because of Stanford's strong industry ties. As with much of grad school, successfully preparing for and landing a faculty position won't just happen: you need to take initiative.

4.2.1 Kinds of Faculty Positions

Only about 5% of Stanford PHDs (one or two students in your entering class) will end up in a job that resembles their advisor's tenure track position at a top-5 CS department. Others will end up lower on the ranking totem-pole or in other kinds of academic jobs. If you are interested in academia, you should think about the basis of your interest. Is it doing research? Freedom to follow your interests? Advising students? Teaching? Working with smart people? Or just the university environment?

There is a pecking-order of prestige in academia:

1. tenure-track faculty at a top research school
2. tenure-track faculty at other research universities
3. teaching-centered academic jobs
   - teaching faculty at a research school (non-tenure)
   - tenure-track faculty at a liberal arts college
4. non-faculty research staff
5. adjunct faculty

Higher up in this pecking order, the jobs are more demanding, harder to get, and pay better. You also get better students and have an easier time getting funding the higher you are. Different positions also emphasize different parts of the job. Consider how hard you want to work and what kind of work you want to do. If you are in doubt about what you want, aim high. It is generally easy to switch from a research-centered career to a teaching-centered career, and to slide down the totem pole within either domain, but it is extremely hard to move the other way once your career has begun. Most academia-bound

Stanford PHDs end up at number 2, with a few stars hitting number 1 and a few deciding to focus on teaching. Avoid an adjunct career.

4.2.2 Preparing

Whatever sort of academic career you're heading for, you should consider your time in grad school to be an apprenticeship. Find opportunities to do the things faculty do.

- Help your advisor write grants. Learn how funding works.

- Recruit junior grad students or undergrads for your project and act as a mentor for them. Participate in CURIS, which pairs undergrads with graduate students during the summer. If you get a good undergrad and you have a well-defined project, they can be extremely helpful.

- Submit papers, attend conferences, and give lots of talks.

- Network with other researchers at conferences and when they come to give talks at Stanford.

- Choose TAships where you can help write tests or assignments and give lectures.

- Be a teaching fellow and teach a whole class.

- Earn the department's Distinction in Teaching.

There are several specific resources available at Stanford:

- The Future Faculty Seminar (CS 400), offered each spring, is a set of talks on all aspects of an engineering academic career, mostly given by Stanford faculty.

- The Career Development Center offers a series of talks on academic careers.

- The Center for Teaching and Learning has lots of talks and resources for becoming a better teacher.

4.2.3   Readings

Tomorrow's Professor, by Rick Reis. A very good book on what to do while you're in grad school in order to land a faculty job.

REFERENCES

The Redbook Wiki
`http://theredbook.pbwiki.com`

Ron Azuma. "So Long, and thanks for the Phd!"
`http://www.cs.unc.edu/~azuma/hitch4.html`

Jason Hong. "Grad School Advice"
`http://www.cs.cmu.edu/~jasonh/advice.html`

PHD Bible
`http://www-cs-students.stanford.edu/phd/`

ABOUT THIS DOCUMENT

In Spring of 2007, a panel of visiting faculty was conducting an every 5–6 year evaluation of the Stanford CS department. It was mentioned that Purdue students distribute an advice manual, called the Blue Book, which is passed from generation to generation of students. Not to be outdone, we created the Redbook.

6.1 PHILOSOPHY AND STYLE

The Redbook should be concise to encourage complete reading and facilitate future updates. It should offer advice instead of listing facts about the program, because those facts can be gotten elsewhere.

6.2 MAINTENANCE

Please maintain the Redbook: add to it, edit it, correct it, and distribute it to first year students in the Fall. The 2007 printing was supported by the Computer Forum although the content was created independently.

Please append a dedication and add to the acknowledgments page.

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