Research Career Paths
Today’s goals

What happens if I keep doing research at Stanford? And after?
Research career paths
“OK, so I took CS 197, now what?”

What can you do after Stanford?

What can you do at Stanford?
Pathways for research

Research is interesting

(we'll unpack this part in a moment)

Professor

Research scientist in industry

Entrepreneur

Engineer / Engineering Lead
Professor

Work on research that you and the field find interesting.
Recruit the best rising talent in the world and mentor them.
Teach in your area of expertise.

Typical goals:
Do research and have impact (e.g., publications, software adoption)
Graduate amazing students
Inspire students to learn about your area
Room for personalization: entrepreneurship, speaking, consulting, &etc.
Research scientist

Join a company’s research division and work on research from within the company. Examples: Microsoft Research, FAIR, nVidia Research, OpenAI

Typical goals:

Do research and have impact (but more focus on translation to the company’s products and less on publication)

Create innovations that transform the company you’re working for (e.g., Kinect, GPT-3, DALL-E, PaLM, TPUs)
Entrepreneur

Start your own company, often based on the research you’re doing, and grow it.

Typical goals:

Scale your ideas and make them available to millions of people

Start a new industry: your start-up is not a “me too” startup. Typically, it’s pitching a dramatically new angle.

Little focus on doing research in the short term
Engineer / Engineering Lead

Join a company and apply your skills toward the development of product

Typical goals:

Be the company’s expert in an area, and potentially grow a team to drive product in that space

Typically, these jobs are for types of levels of expertise and experience that cannot be acquired through a BS or MS

Little focus on doing research in the short term
What’s the distribution?

I looked into this! I scraped names of all Ph.D. graduates in Computer Science from Stanford, MIT, and UC Berkeley.

I then mapped the names onto LinkedIn pages (yes, LinkedIn availability adds bias, but we found about 75% of people)

Tag their jobs on their LinkedIn:

Faculty: job titles including words such as “faculty” or “professor”

Entrepreneurship: triggered by titles such as “founder” or “partner”

Research scientist: titles such as “researcher” or “scientist”

Engineer: titles such as “programmer” or “architect”
Percentages add up to more than 100% because people can hold more than one position. Entrepreneurs and research scientists are a common mix. Faculty, likewise, can sometimes jump into industry research or start a company.
Pathways for research

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Pathways for research

Research is interesting

Academic year research

Summer CURIS internship

BS with honors

Professor

Research scientist in industry

Entrepreneur

Engineer / Engineering Lead
Academic year research

Get units for doing research with a faculty member

Generally, start with CS 195, which fulfills the CS Senior Project requirement, then go on to CS 199

How to get started? Talk to your TA about possible faculty to approach, and we can help facilitate an introduction.

Typically, you’ll get involved in a project ongoing in the lab
Continuing CS 197 research

The TAs are happy to keep working with you! If you’d like, we can support similar independent study courses (e.g., CS 195) to continue your CS197 project toward a workshop, work in progress, or paper.

We, the staff, are also happy to help facilitate introductions to faculty you want to work with.
Summer CURIS research

Apply your full effort toward a fun research project for the summer

Get mentored by a faculty member and PhD student

Get paid

No need to balance the project against classes

Live on campus

Typically, you join a project that’s ongoing in the faculty member’s lab

Apply early in winter quarter at curis.stanford.edu
BS with honors

Receive a special designation on your diploma (“BS with honors”)
Engage in a yearlong research project your senior year
Takes the place of the senior project
Typically, you do this with faculty who you’ve already been working with
Apply in the spring of your junior year
Pathways for research

- Research is interesting
- Academic year research
- Summer CURIS internship
- BS with honors
- Professor
- Research scientist in industry
- Entrepreneur
- Engineer / Engineering Lead
Pathways for research

Research is interesting

Academic year research

Summer CURIS internship

BS with honors

Ph.D.

Professor

Research scientist in industry

Entrepreneur

Engineer / Engineering Lead
All of you can succeed at a PhD!

A Ph.D. is a grown-up version of the research you do as an undergraduate or master’s student. You get much more control over the projects you are working on, and become first author on the resulting publication.

It’s challenging because we doubt ourselves constantly. But you also earn the ability to tackle any complex problem.

Cool side benefit: become Dr. [Lastname]
How do I get in to a Ph.D.?

The most important criteria for getting into a Ph.D. program is demonstrated interest and ability to do research.

“How do I demonstrate interest and ability?” Do research!
How do I get in to a Ph.D.?

In your statement, talk about research you did and the impact you had on the project. (You can include your CS 197 class project in it!)

You will want three recommendation letters from people with Ph.D.s to support your case.

Typically, one is the faculty you worked most closely with on research. The other two can be supporting letters, or other research mentors. available.
What questions do you have?
Panel on research careers
Research Career Paths

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