

HCI/Design Careers for New College Grads

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<http://pgbovine.net/hci-design-jobs.htm>

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The goal of this talk is to give college students an overview of entry-level job positions available to HCI/Design students.

This talk is a prototype made
via user-centered design.

This information changes *very rapidly*, so your feedback helps me improve this talk each year.

Needfinding (find-needing?)
the need found me

Question I frequently get in
office hours or after class:

*"What kinds of jobs can I get if
I'm an HCI/Design student?"*

I'm not the best person to answer this question. But I'm here right now!

I graduated from college in 2005 with a degree in Electrical Engineering & Computer Science.

I've never worked as a designer.

The greatest thing about being a professor is having access to students and alumni who *are* experts on this topic ...

My impromptu panel of HCI/Design job experts



Carolyn Zhang

MIT computer science 2014
Designer @ small-ish design agency



Carrie Cai

Stanford human biology / education master's
MIT Ph.D. in computer science (HCI) 2017
Research Scientist @ Google



Emily Danchik

U. Rochester computer science & linguistics
Carnegie Mellon master's in HCI 2014
UX Architect @ large I.T. consulting firm
Former UX/Interaction Designer @ Microsoft



Amy Lin

U. Rochester computer
science & linguistics 2016
Software Developer @ Intel

All of the insights are theirs;
all of the mistakes are mine.

Hopefully in the future I can call
on *you* to be part of this panel.

One-slide summary: if you want an HCI/Design job ...

Build up a design ***portfolio***, lean hard on personal and alumni ***connections***, and get a design ***internship*** while in college.

Outline:

Kinds of design jobs

How to get one out of college

What about grad school?

What jobs are available?

Conveniently, jobs correspond to what you've been doing in this Intro. HCI/Design class!

(Remember how I told you this was a super-practical class?)

What you did in Intro. HCI
(COGS120/CSE170):

Needfinding

What should we even build?

Storyboarding

Paper Prototyping

How should we *start* to build it?

Mockups: Visual Design

Interactive Prototypes

What should it look and feel like?

User Testing

Online Experiments

How can we measure how well it works for real users?

Final Web/Mobile App

How can we ship a finished product?

What you did in Intro. HCI
(COGS120/CSE170):

Needfinding

Storyboarding

Paper Prototyping

Mockups: Visual Design

Interactive Prototypes

User Testing

Online Experiments

Final Web/Mobile App

What jobs allow you to do this:

UX (**U**ser **eX**perience) Researcher
PM (Product/Project) Manager

UX Designer

Visual Designer

Interaction Designer, UX Designer,
UX Architect, UX Prototyper

UX Researcher

UX Researcher
Data Scientist

Front-end developer
Software engineer

A disclaimer on *job titles*:

They're confusing since different companies call similar jobs by different names, and names change fast. My head was spinning as I was researching this online.

Simplified overview of design job titles

- UX Researcher - needfinding, user testing/experiments
 - (often are master's or Ph.D. grads)
- Product Manager (PM) - needfinding, team coordination
- UX/Interaction/Product Designer - non-code prototypes
 - (**most common** type of job for new college grads)
- UX Architect/UX Prototyper - design + some coding
- Visual Designer - art/graphics
- Data Scientist - write lots of code to analyze data; Ph.D.-focused
- Front-end Developer - write lots of production code

How do you get an HCI/Design job out of college?

Build up a design ***portfolio***, lean hard on personal and alumni ***connections***, and get a design ***internship*** while in college.

***Portfolio + connections ->
internship -> full-time job***

Portfolio (basics)

- Start by making a good professional website
- Class projects with design component (like this one!)
- Volunteer to help on-campus groups or friends with projects; be resourceful about finding work
- Work part-time as a freelance designer for local companies or friends' startups while in school
- Once you get a design internship, put in portfolio too

Portfolio (advanced)

- Have a compelling and fresh ***point-of-view*** that frames your work and makes you stand out
 - Avoid cliches: *"I'm passionate about making innovative progress at scale."*
- Be able to justify and critique your own process
- Emphasize most relevant projects to desired roles
- Look beyond web/mobile apps: create posters, art pieces, event flyers, business/marketing slide decks

Portfolio + **connections**

- Cold-email alumni, especially *recent* alumni who put themselves on career advising lists
- Cold-email alumni regardless; people are nice!
- Friends, family, dormmates, instructors ...
 - Portfolio is key! Show them you do good work
- Your bosses from prior jobs/internships
- *Most **good** jobs obtained via personal connections*

Portfolio + connections -> **internships**

- Prepare for interviews: critique your portfolio
- Lots of interview prep resources
 - e.g.,: [A Guide to Interviewing for Product Design Internships](#)
- Mainly target design-oriented internships
 - Maybe front-end developer (more on that later)
- Ideally you can put internship work in your portfolio
- If you can't get internships, ***spend your summers building your portfolio in any way you can***

Looking for a full-time job ***is*** a full-time job.

Apply broadly, and don't worry if you don't exactly match the job description. It's free to apply!

Looking for a full-time job *is* a full-time job.

Don't have your heart set on any one specific place; successful applicants apply to dozens of jobs.

Company size:

In general, smaller company -> more varied roles

(e.g., designer at startup may do needfinding, front-end coding, even marketing)

- N=1 (freelancer): ++flexibility, --uncertainty
- N=tiny (startup): +variety, +growth, -uncertainty
- Small-ish design agency: work directly with clients
- In-house designer at big company: more fixed roles

Looking beyond the usual tech companies ...

Government I.T. agencies

Government contractors

Defense industry

Federal science labs

Nonprofits

(HCI/Design skills often in demand but these sectors can't easily attract the most experienced designers. You can make a big impact here!)

Looking beyond pure design jobs ...

- In 2015, 93% of surveyed designers said ***coding was important*** (in 2005, ~5% would say so)
 - Source: [John Maeda, https://designintechreport.wordpress.com/2015/03/15/design-in-tech-report-2015/](https://designintechreport.wordpress.com/2015/03/15/design-in-tech-report-2015/)
- Ideal ratio: 1 designer for every 5 programmers
- Reality: 1 designer every 10-30 programmers
- Reality: *far more* programming than design jobs
- A good adjacent role is ***front-end developer***
 - Build up your design portfolio on the side while working and learn from designers on your team; transition to design later
 - Many places still don't value design but do value programming; it's your chance to sneak design thinking into your workplace!

What if you can't find a full-time job right away?

Do freelance design jobs:

- to make some money from part-time work
- to make sure you don't have a gap in your resume
- to most importantly, build up your ***portfolio*** and ***connections***
 - ... which will improve your odds of landing a full-time job in the future
- (find via personal connections or online postings)

Should you go to graduate school ...

to get a master's degree in HCI/Design?

- NO - if you already have good portfolio/internships
- NO - if you can already get a design job from college
- MAYBE - if your major is far away from HCI/Design
- MAYBE - if you want to be a design teacher
- YES - if you don't have a strong portfolio yet
- YES - if you can afford the tuition and time
- YES - if you want to be a UX Researcher

Should you go to graduate school ...

... to get a Ph.D. degree in HCI/Design?

- NO - if you're aiming for *most* design-related jobs
 - (hired at same or slightly-higher level than bachelors/masters)
- MAYBE - if you want to be a UX Researcher
- YES - if you want to be a university professor
- YES - if you want to be a research scientist
 - (despite the similar-sounding job title, research scientists do more open-ended and exploratory work than UX Researchers)
- YES - if you want to be a data scientist

Summary of HCI/Design jobs -- time for questions!

Needfinding	UX (U ser eX perience) Researcher
Storyboarding	PM (Product/Project) Manager
Paper Prototyping	UX Designer
Mockups: Visual Design	Visual Designer
Interactive Prototypes	Interaction Designer, UX Designer, UX Architect, UX Prototyper
User Testing	UX Researcher
Online Experiments	UX Researcher Data Scientist
Final Web/Mobile App	Front-end developer Software engineer

Presentation history and credits

2017-11-27: first prototype, talk given in UCSD COGS120/CSE170

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