

GET A JOB!

Breaking into the Tech Industry

Topics



- Opportunities at Harvard
- Resumés
- Interview Format
- Getting Ready
- Presenting Yourself
- Answering Tech Questions
- Following Up

Opportunities for Harvard Students



amazon.com[®]

Linked 



Microsoft

Google

Opportunities for Harvard Students



- Office of Career Services (OCS)
 - ▣ Harvard specific policies for participating companies
 - ▣ Interview and resumé resources
- Crimson Careers
 - ▣ Job postings
 - ▣ Internship offers

Typical Roles



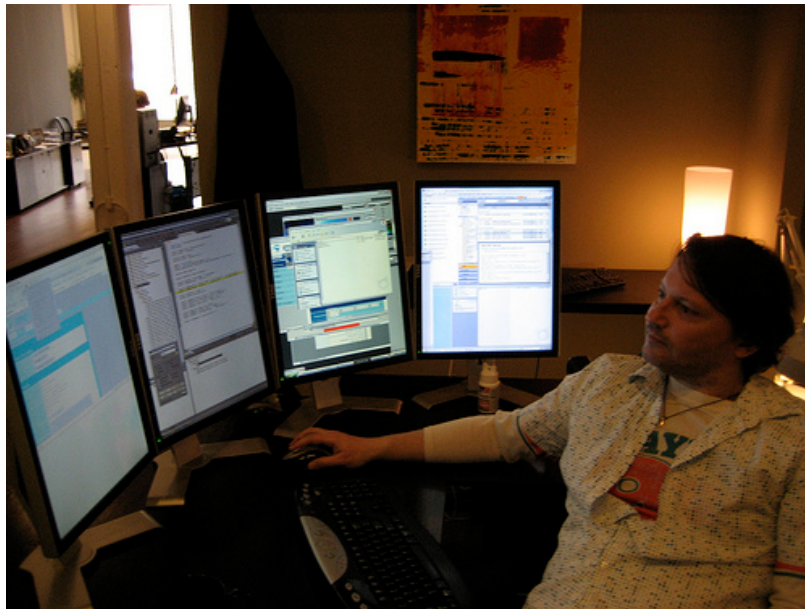
- Program Manager (PM)
- Software Developer (Dev)
- Software Tester (Test)
- User Experience (UX)
 - ▣ designs user interface and interaction

Program Manager (PM)

- Customer-oriented
- Designs and cuts features and products
- Manages time control
- Oversees projects



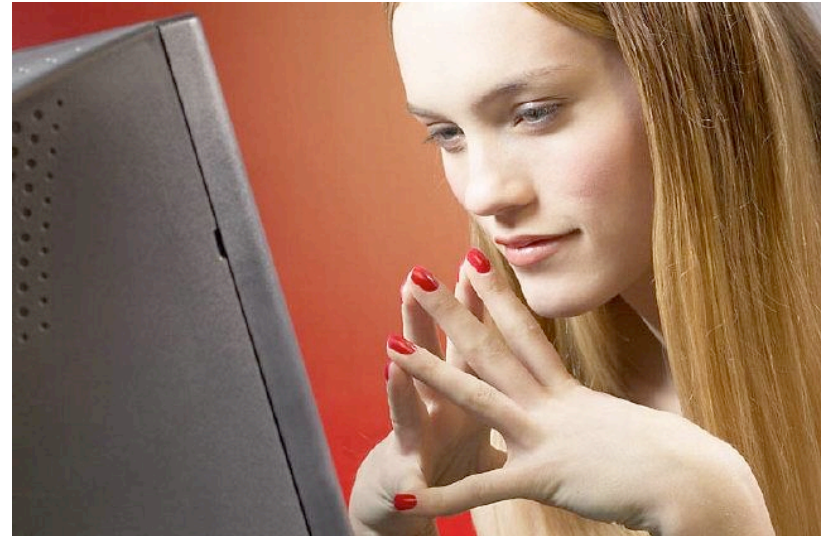
Software Developer (Dev/SWE)



- Writes code
- Develops features
- Unit-testing

Software Tester (Test)

- Finds bugs
- Handles performance and stress testing of dev code



Resumés



- Tailor your resumé to the job or internship for which you are applying.
- Don't exaggerate; be prepared to demonstrate knowledge or skills you claim to have!
- Include relevant experience and explain your role in past projects.
- Note your contribution!
 - ▣ Active verbs: headed, led, contributed, etc.
- Only include languages you actually know
 - ▣ Clarify your relative level of familiarity if unsure

The Tech Interview



The Tech Interview



- First round interview
 - ▣ Usually 1 hour-long interview
- Final round interview
 - ▣ Usually 3-5 30-60 minute interviews
- Interview structure
 - ▣ Introductions
 - ▣ Résumé/experience questions
 - ▣ 1 longer problem or 2 smaller ones
 - Potential follow-up questions
 - ▣ Questions for the interviewer

Core Technical Knowledge



- Language Syntax (Know at least one well!)
- Linked Lists
- Sets, Hash Maps, Trees, Graphs
- Recursion
- Object-oriented programming
- Algorithms (Search, Sort, etc.)
- Time/Space Complexity and Asymptotic Notation (Big O)

Getting Ready



- Brush up on at least 1 language
- Review data structures
- Practice sample questions
- Other resources:
 - ▣ How Would You Move Mt. Fuji? by: William Poundstone
 - ▣ Programming Interviews Exposed by: John Mongan, Noah Suojanen and Eric Giguère
 - ▣ Programming Pearls by: Jon Bentley

Working Out Loud



- Interviewers want to know how you solve problems
 - ▣ Less about solution, more about process
- Act as if you are working through the problem with the interviewer
- Share your thoughts and ideas, regardless of whether you are sure that they are right
- Advantage of seeing how they react to your ideas

Getting Unstuck



- Ask clarifying questions.
- Work through your thought process out loud.
- Ask for hints if you need one.
- If you don't know, bluffing won't work.
- Don't panic.

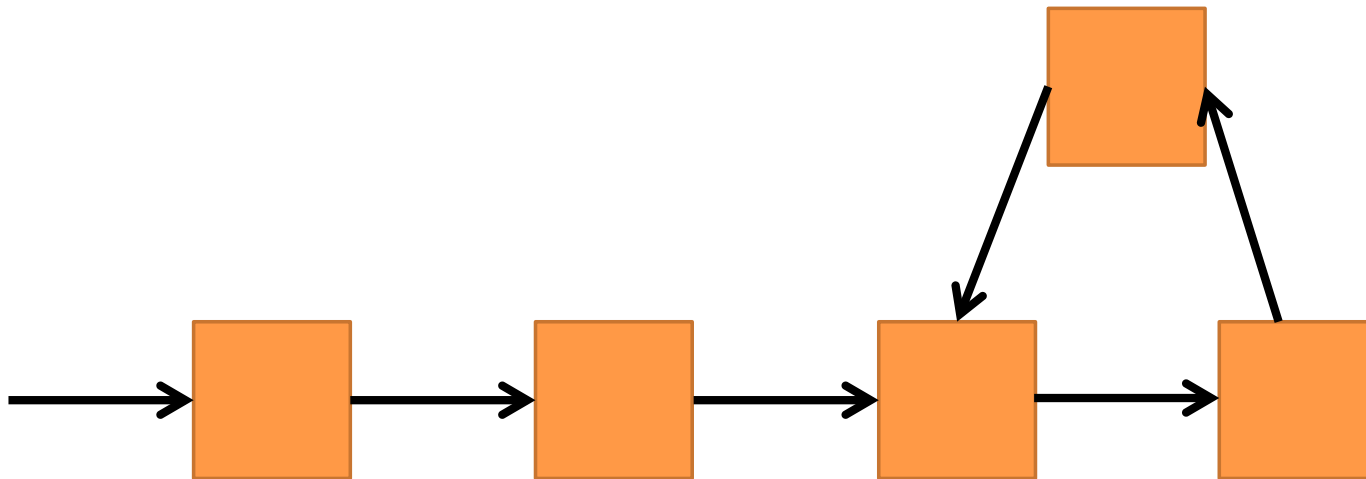
Interview Questions



- Coding Questions
- Product Questions
- Logic/Problem-Solving Questions

Coding Question

- Given a linked list, determine whether it contains a cycle.



Coding Question

- Given a positive real number, find the square root.
- (No calling an existing square root function!)

$$\sqrt{x} = ?$$

Product Question

- Design a remote control for a television with 2 buttons.



Product Question

- What is your favorite product we make? What do you like about it?



Followup questions



- Tech questions
 - ▣ What's the run time of your code?
 - ▣ Can you improve it? If so, how?
- Design questions
 - ▣ What if this parameter was changed?
 - ▣ How might we design a back end to this?

Personality and Fit



- Why are you interested in this position?
- Why are you interested in working with this company?
- What group projects have you been a part of?
- How have you handled conflict in groups?
- What projects have you worked on outside of your academic work?

Following Up



- Ask them when you can expect to hear back
 - ▣ If you don't hear back by then feel free to send an email to your recruiter
- Ask how long you have to accept/decline your offer
 - ▣ Note OCS companies have special restrictions

Questions?



More to come!



- Sign up for 'Acing Your Technical Interviews' at cs50.net/register!
- Provide us feedback at:

<http://bit.ly/tf4cpO>