
Tech Job Application & Interviews

CS580 Advanced Software Engineering

<http://cs580.yusun.io>

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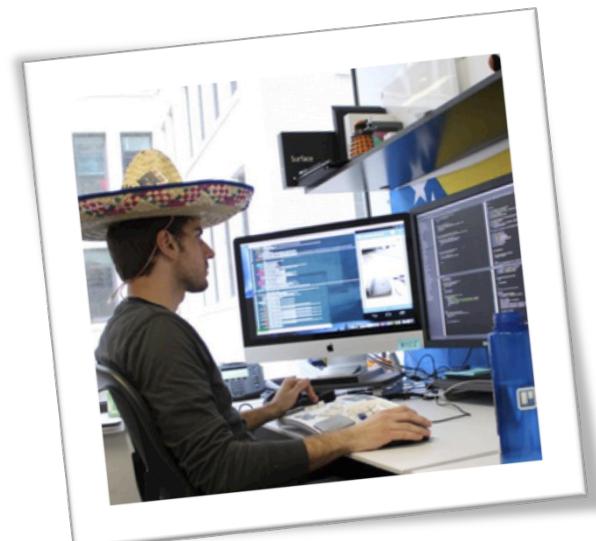
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Choose Your Career



The Types of Software Development

- ◆ Web service development (Back-end)
- ◆ Mobile development
- ◆ Web front-end development
- ◆ UI/UX design
- ◆ Data engineer
- ◆ Software testing / QA
- ◆ Embedded software development
- ◆ Domain-specific application development
- ◆ Desktop/System application development
- ◆ Database administrators
- ◆ System administrators



The Types of Software Companies

- ◆ Big Hightech
- ◆ Startups
- ◆ Traditional Fortune 500
- ◆ Small Companies



The Types of Jobs

- ◆ Full-Time
- ◆ Internship
- ◆ Part-Time
- ◆ Startup



Suggestions

- ◆ Interests & Passion are the most important
 - ◆ Do the job you like
 - ◆ The team is sometimes more important than the company
- ◆ No idea?
 - ◆ Just do it
 - ◆ Then you know what you want



How to Apply?



Referral

- ◆ It's not what you know, it's WHO you know



Career Fair

- ◆ Good opportunities
- ◆ Do your homework!



Apply Online

- ◆ Apply as many as possible
- ◆ Don't worry too much about the requirements - Just try
- ◆ Chance is small, but there are chances



LinkedIn

- ◆ Be technical
- ◆ Make yourself searchable



About Resume

- ◆ Be short: 1-2 Pages
- ◆ Things to highlight: technical, technical, and technical!
 - ◆ Technical experiences/project
 - ◆ Technical skills
 - ◆ Years of experiences, e.g., Java (4 years), Python (3 years)
 - ◆ Be like a CS major (no MS Office, Windows, etc.)
 - ◆ Related awards
 - ◆ Project links / websites
- ◆ No empty words
 - ◆ “Great leadership”, “Teamwork spirit”, “goal-driven”, etc.

When to Apply?

- ◆ About 6 months ahead
- ◆ Summer Internship: end of the year or early next year

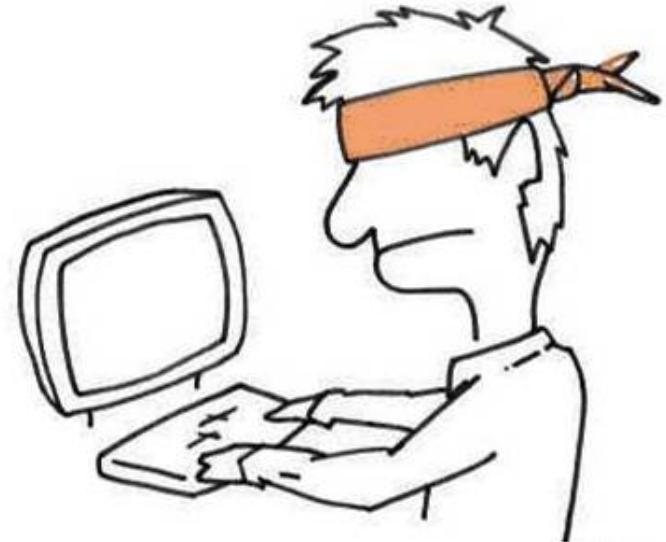


What's the Format of Interviews?



Phone Interviews

- ◆ About 1-3 phone interviews
 - ◆ Each 40 mins
 - ◆ 2-3 questions (80% coding)
- ◆ Phone interview = Computer Coding
 - ◆ <http://collabedit.com/>
 - ◆ Google Doc
- ◆ Topics
 - ◆ Data structure and Algorithms
 - ◆ OO concepts
 - ◆ OO design
 - ◆ System design
 - ◆ Probability/Statistics
 - ◆ Brain teasers



Onsite Interview

- ◆ 1-day on-site interview
 - ◆ Meet about 5 engineers and 1 manager
 - ◆ Each 45 mins
 - ◆ 1-2 questions (90% coding)
- ◆ Onsite Interview = White board coding
- ◆ Extremely tired
 - ◆ Take exercises
 - ◆ Coffee



How to Prepare?



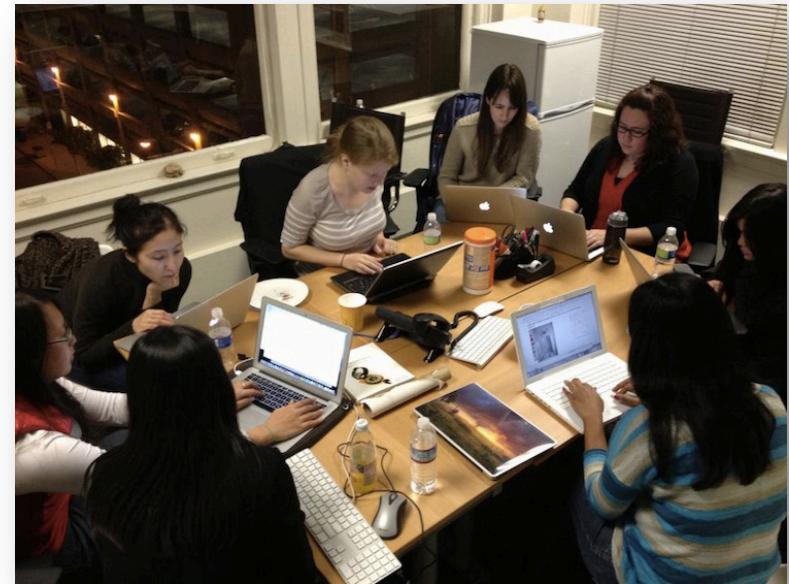
Work Hard

- ◆ Don't expect any shortcut
- ◆ At least 2 months algorithms practice
- ◆ Every single day



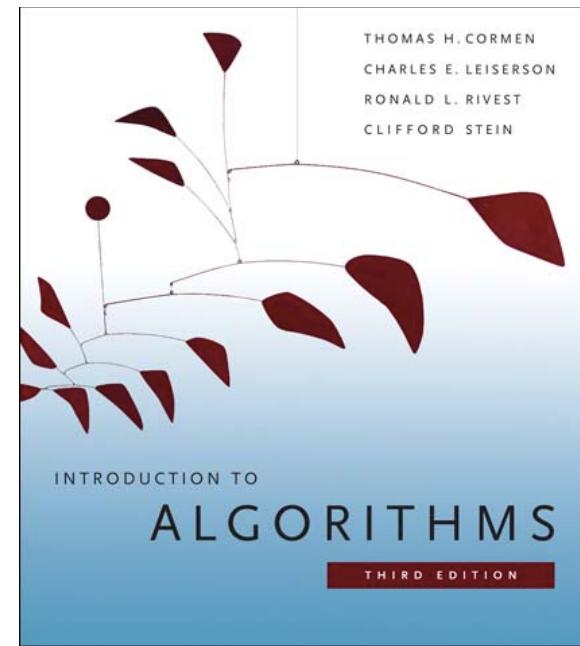
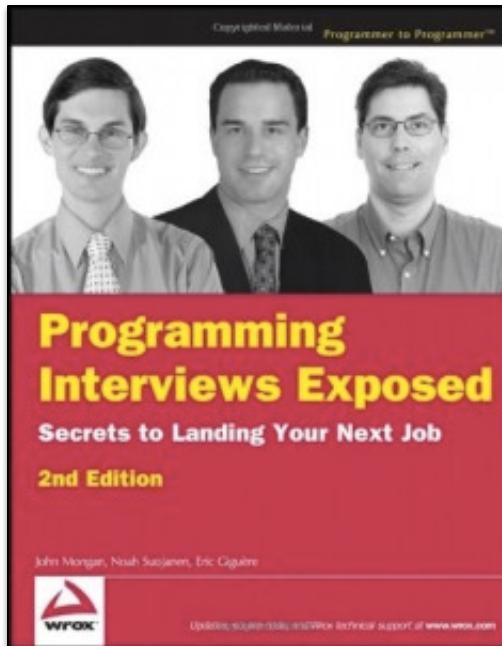
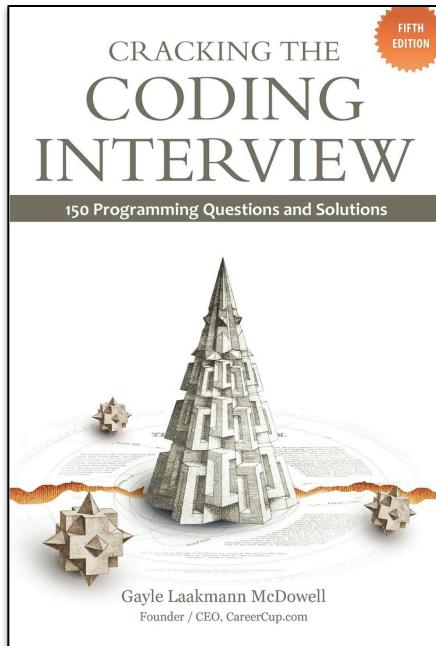
Female Developers

- ◆ Interview bars are a little bit lower



Recommended Resources

- ◆ <http://leetcode.com/>
- ◆ <http://www.careercup.com/>



The Recommended Way

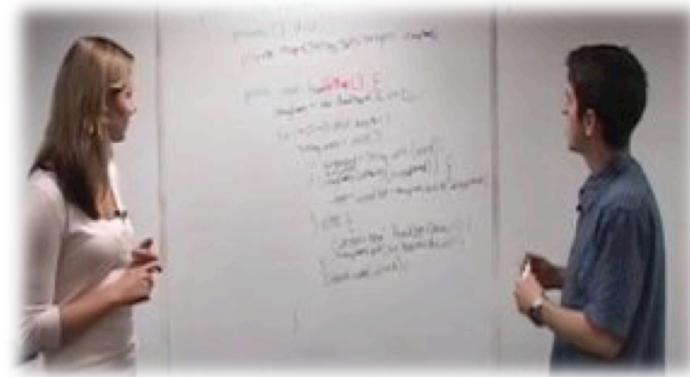
- ◆ Practice with real questions
- ◆ Learn and summarize the things you don't know
- ◆ Repetition!

Tips

- Practice coding in a non-IDE environment
 - <http://collabedit.com/>
 - Google Doc
- Practice coding with a white board
 - Pay attention to time complexity
 - Practice explaining your code while writing it
 - Practice asked questions
 - <http://www.careercup.com/>
 - Team practice and stress practice

The screenshot shows the collabedit.com website interface. At the top, there's a navigation bar with 'Log In' and 'Sign Up'. Below it, a header says 'simple collaborative text' and 'du6u4'. The main area has a code editor containing Java code for finding the best checkout point. To the right of the code editor are sections for 'Programming Language' (set to Java), 'Collaborators' (listing 'Yu'), and 'Chat' (showing a message from 'Yu: changed language to java'). At the bottom, there's a 'Chat Here' input field and some status information: 'Position: Ln 27, Ch 1 | Total: Ln 27, Ch 908'.

```
1 package edu.csupomona.cs240;
2
3 public class CheckoutPointLocationService {
4
5     public int findTheBestCheckoutPoint(int[] orders) {
6         int bestPointIndex = 0;
7         int currentMinDistance = Integer.MAX_VALUE;
8
9         for (int i = 0; i < orders.length; i++) {
10            int totalDistance = 0;
11            for (int j = 0; j < orders.length; j++) {
12                totalDistance += orders[j] * Math.abs(j - i + 1);
13            }
14            if (totalDistance < currentMinDistance) {
15                bestPointIndex = i;
16                currentMinDistance = totalDistance;
17            }
18        }
19        return bestPointIndex;
20    }
21
22    public static void main(String[] args) {
23        CheckoutPointLocationService service = new CheckoutPointLocationService();
24        System.out.println(service.findTheBestCheckoutPoint(new int[]{624, 312, 312, 234, 78}));
25    }
26}
```



Prepare Questions to Ask

- ◆ Make yourself professional and technical
- ◆ Ask
 - ◆ Projects
 - ◆ Techniques and tools
 - ◆ Software development approaches
 - ◆ Be specific and relevant
- ◆ Don't ask
 - ◆ Weather
 - ◆ Work schedule
 - ◆ Holidays



Behavior Questions

- ◆ Prepare the basic
- ◆ Know your own resume very well!

