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# Tech Job Application & Interviews

CS356 Object-Oriented Design and Programming

<http://cs356.yusun.io>

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# How to Choose Your Career?

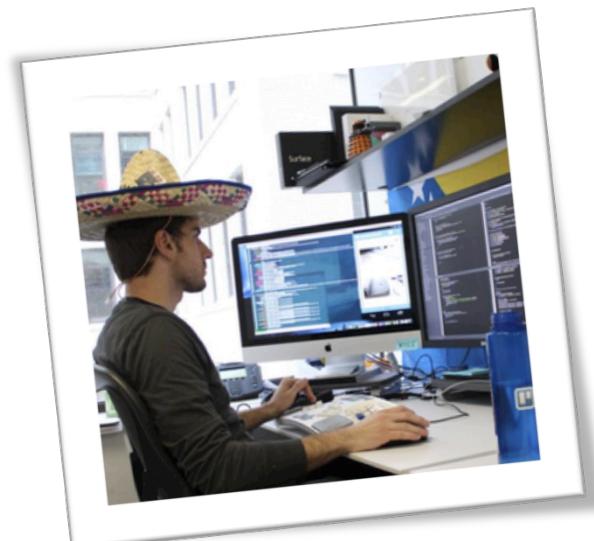
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# The Types of Software Development

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



# The Types of Software Companies

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



# The Types of Jobs

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



# The Salary

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# Suggestions

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- ◆ 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
  - ◆ You will not regret about what you have done

# How to Apply?

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# Referral

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



# Career Fair

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- ◆ Good opportunities
- ◆ Do your homework!



# Apply Online

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



# LinkedIn

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- ◆ Be technical
- ◆ Make yourself searchable



# About Resume

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- ◆ 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?

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



# What's the Format of Interviews?

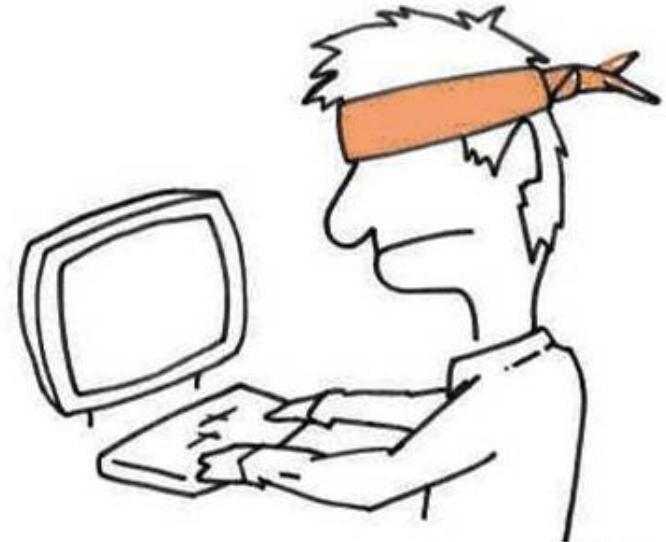
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# Phone Interviews

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- ◆ 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
  - ◆ Math/Probability
  - ◆ Brain teasers



# Onsite Interview

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- ◆ **1-day on-site interview**
  - ◆ Meet around 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

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



# Female Developers

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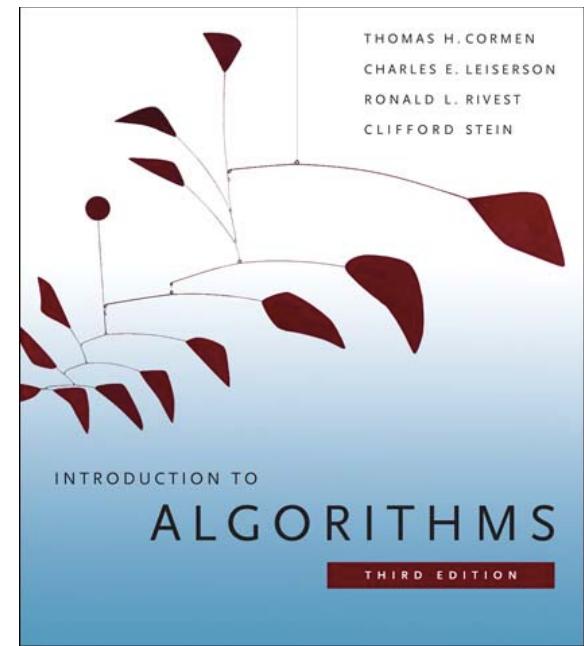
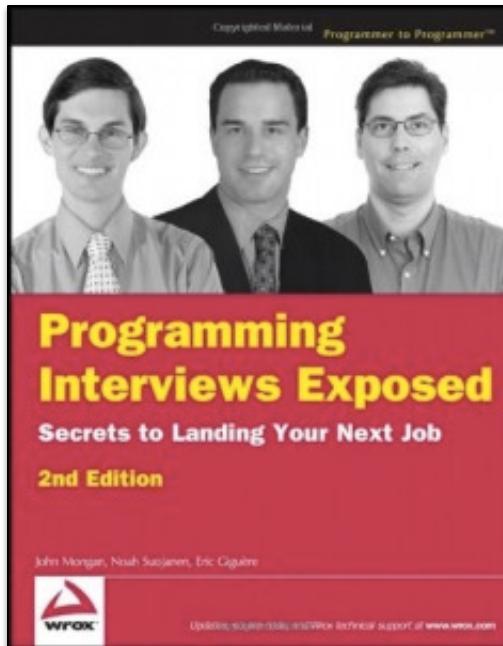
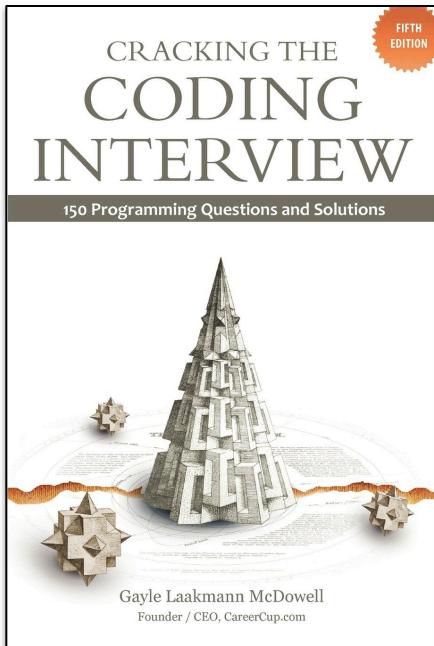
- ◆ Interview bars are a little bit lower



# Recommended Resources

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



# The Recommended Way

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

# Tips

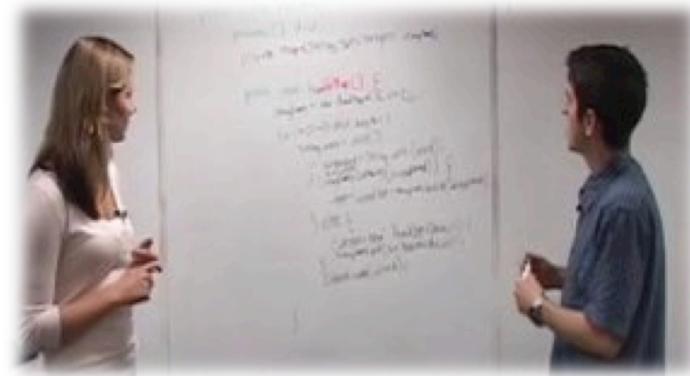
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- Practice coding in a non-IDE environment
  - <http://collabedit.com/>
  - Google Doc
- Practice coding with a white board
  - Pay attention to time complexity
  - Practice explaining your code while writing it
  - Practice asked questions
  - <http://www.careercup.com/>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

The screenshot shows the Collabedit interface with a Java code editor. The code is as follows:

```
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}
```

Below the code editor are sections for "Programming Language" (set to Java), "Collaborators" (listing "Yu"), and "Chat". The chat window shows the message "Yu: changed language to java". At the bottom are "Position: Ln 27, Ch 1" and "Total: Ln 27, Ch 906".



# Prepare Questions to Ask

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- ◆ 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

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



# Start Preparing from Today

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