

Quora

Interviewing Crash Course

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Choosing Companies

Questions to ask yourself

- **What are you looking for out of an internship / full-time job?**
- Would you be excited to get up every day and work on the product?
- Would you be excited to get up every day and work with the people?
- Do the things you value align with what the company values?
- How big is the company?

Questions to ask yourself

- What are you looking for out of an internship / full-time job?
 - Impact?
 - Learning?
 - Work-life balance?
 - Location?
 - Money?
- Everyone is different

Questions to ask yourself

- What are you looking for out of an internship / full-time job?
- **Would you be excited to get up every day and work on the product?**
- Would you be excited to get up every day and work with the people?
- Do the things you value align with what the company values?
- How big is the company?

Questions to ask yourself

- Would you be excited to get up every day and work on the product?
 - Use the product!
 - Learn more about the company's mission

Questions to ask yourself

- What are you looking for out of an internship / full-time job?
- Would you be excited to get up every day and work on the product?
- **Would you be excited to get up every day and work with the people?**
- Do the things you value align with what the company values?
- How big is the company?

Questions to ask yourself

- Would you be excited to get up every day and work with the people?
 - Ask questions to your interviewers
 - If you have an offer, ask to talk to people

Questions to ask yourself

- What are you looking for out of an internship / full-time job?
Would you be excited to get up every day and work on the product?
- Would you be excited to get up every day and work with the people?
- **Do the things you value align with what the company values?**
- How big is the company?

Questions to ask yourself

- Each company has a different set of values
 - Things that the company values more than other companies
- Quora's values
 - Mission-First
 - Drive
 - Agility
 - Awareness
 - Pragmatism

Questions to ask yourself

- What are you looking for out of an internship / full-time job?
 - Impact? Learning? Work-life balance? Location? Money?
- Would you be excited to get up every day and work on the product?
- Would you be excited to get up every day and work with the people?
- Do the things you value align with what the company values?
- **How big is the company?**

	Small (0-50)	Medium (50-500)	Large (500+)
Your role	Many roles	Generalist	Specialist
Autonomy	Do what needs to be done	High level mandate	Clear direction
Product influence	Eng/pm hybrids	Involved in planning	Receive plans
Agency	Choose (or start) your team	Choose among some teams	Assigned a team
Access to information	Everything is discussed openly	Lots of information available	Information carefully controlled
Mentorship	Ad-hoc	Mentors, buddies, bootcamps	“XYZ University”
Financial return	Low salary + very high potential upside	Reasonable salary + high potential upside	Very high salary + low potential upside

Resumes

Not that important

?

30 seconds

Resume Rules

- One page. No exceptions.
- Make it easy to skim: where have you worked?
- Contact information should be the easiest thing to find.
- Highlight specific accomplishments from past internships.
- Include interesting personal projects.

Resume Rules

- No charts or ratings next to skills.
- You don't need an objective. We know references are available upon request.
- If you don't already have a professional-looking email address, create one.
- Include relevant links like LinkedIn, GitHub, etc.

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linkedin.com/in/js

facebook.com/js

twitter.com/js

Profile

Introduce yourself, your career and your next professional goals.
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Experience

MILANI DESIGN

New York
2009 - today

CEO

Description of the position and activities performed.
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi commodo, ipsum sed pharetra gravida, orci magna rhoncus neque, id pulvinar odio lorem non turpis.

GALLART GALLERY

Washington DC
2006 - 2008

DIRECTOR

Description of the position and activities performed.
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi commodo, ipsum sed pharetra gravida, orci magna rhoncus neque, id pulvinar odio lorem non turpis.

WESTEND FASHION

Boston
2003 - 2005

MANAGER

Description of the position and activities performed.
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi commodo, ipsum sed pharetra gravida, orci magna rhoncus neque, id pulvinar odio lorem non turpis.

Education

GWU BUSINESS

Washington DC
2001 - 2003

BUSINESS ADMINISTRATION MASTER'S DEGREE

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NYU BUSINESS

New York
2001 - 2003

BUSINESS MANAGEMENT BACHELOR OF ARTS

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi commodo, ipsum sed pharetra gravida, orci magna rhoncus neque, id pulvinar odio lorem non turpis.

Skills

Professional Skills

Microsoft Office ★★★★★
Windows ★★★★★
Mac OS ★★★★★
Accounting ★★★★★
Data Handling ★★★★★
Web Skills ★★★★★

Personal Skills

Organization ★★★★★
Communication ★★★★★
Time Management ★★★★★
Team Player ★★★★★
Commitment ★★★★★
Problem Solving ★★★★★

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EXPERIENCE

BBDO - MARKETING MANAGER / 2010 - present

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BBDO - AREA MANAGER / 2005 - 2010

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REFERENCES

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EDUCATION

THE ROCKEFELLER UNIVERSITY (MSA) / 2006

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IN - TECHACADEMY CAMPUS (GD) / 2004

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WORKSHOPS

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Mr. John Bruno
HR Manager / A Bank
211 Phoady
W1J 9H, London, UK

Dear John Dear

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KEY RESPONSIBILITIES

Executive Development, Strategic Planning and Forecasting, Team Building, Coaching

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Sincerely,

Jennifer Smith
Endorsing Curriculum Vitae

Types of Interviews

Logistics

- Start interviewing as early as you can
 - Common for interns and full-time to interview in late summer / early fall
 - Some students even interview for summer $i + 1$ during summer i
- Plan interviewing into your semester schedule
 - It takes a lot of time
- Look for programs targeted to your year
 - Some larger companies have programs geared towards first-year CS students

Logistics

- Some companies start with an online coding challenge (~30 minutes)
- Technical phone screen (45–60 minutes)
- Onsite portion (3–5 interviews, 45–60 minutes each)
 - Might meet with engineers, design, PM, etc.

Types of Interviews

- Algorithms
- Coding
- Practical
- Systems Design
- Culture

Types of Interviews

- **Algorithms**
- Coding
- Practical
- Systems Design
- Culture

Algorithms

- Problems that are more about getting the algorithm than actually coding it up
 - Actual code is straightforward / simple, but problem is hard
- Try to optimize both time and space complexity
 - OK to start with a naive solution, then optimize
 - If the solution seems too complicated, it probably is
- We'll go into much more detail later!

Algorithms

- Common classes of algorithms problems:

Algorithms

- Common classes of algorithms problems:
 - Strings
 - Recursion
 - Dynamic Programming
 - Graphs, Trees
 - Math

Algorithms

- Tools for solving problems:
 - Arrays, linked lists
 - Hash tables
 - Shortest path algorithms (e.g., BFS, A*)
 - Built-in string methods
 - Memoization

Types of Interviews

- Algorithms
- **Coding**
- Practical
- Systems Design
- Culture

Coding

- Problem is simple, but implementation is more complex
- Decompose the problem: code quality is important
 - Create helper functions appropriately
 - Can you make the code even simpler?
- Familiarity with language helps a lot (more on this later)

Types of Interviews

- Algorithms
- Coding
- **Practical**
- Systems Design
- Culture

Practical

- Given an existing (large) codebase, make changes to it
 - Very different than implementing something from scratch!
- Take the time to understand how parts of the codebase fit together
 - Might spend more time reading than writing
- Be familiar with some development environment (e.g., breakpoints)
- Use stack traces as a tool to see the call stack (e.g., throw an exception)

Types of Interviews

- Algorithms
- Coding
- Practical
- **Systems Design**
- Culture

Systems Design

- Not as common for interns and new grads
- Technical design
 - “How would you architect the Gmail app?”
- Product design
 - “What feature is missing from Gmail?”

Systems Design

- Understand the constraints of the system
- Be aware of what assumptions you're making
- Think about the consequences of each decision you make
- Challenge your own ideas—when do they break?
- Consider how future-proof your design is
 - Does it break with more users? More developers?

Types of Interviews

- Algorithms
- Coding
- Practical
- Systems Design
- **Culture**

Culture

- How do your values align with the values of the company?
 - Questions will vary based on what the company values
- Interviewers get signal by talking about your experiences
 - Looking back
 - Looking forward

Culture

- Looking back (e.g., past internships, projects)
 - What went well, and what didn't?
 - What were the hardest challenges you faced? How did you overcome them?
 - What would you have done differently with the benefit of hindsight?

Culture

- Looking forward (e.g., your next job)
 - Why this company?
 - What do you want to work on?
 - What are your short-term and long-term goals?
 - What are important parts of a culture to you?

Culture

- Take some time to reflect
 - What does your ideal day look like?
- Avoid being overly negative about the past
 - What if you were to be overly negative at this job?
- If you're under an NDA, that's fine—just say so

Interview Prep

Long Term

- Do more interviews
- Spend more time programming
- Take CS124

Short Term

- Practice the basics

Practice the basics (in your language of choice)

- How do you:
 - define a class?
 - insert/remove things from a linked list?
 - BFS/DFS a tree?
 - initialize/print/sort an array?
 - use a hash table?

Practice the basics (in your language of choice)

- If you have these down cold, you can worry less about them and focus on problem solving
- As you do practice problems (from your friends, from the internet, from a book, from past interviews), look for common things

Short Term

- Practice the basics
- Practice a variety of problems

Build Your Toolbox

- Find practice questions on a variety of topics
 - Recursion / Dynamic Programming / Complexity
 - Trees / Graphs
- Learn a variety of data structures
 - Not just how they work, but when to use them and which ones apply to similar situations
- Will give you more ideas to consider when approaching problems

Anatomy of the Interview

the preamble

Intros & Resumes

- You might be asked about a past internship, research, or a project
 - If anything is on your resume, you should be able to explain it
- Keep it short

the technical problems

Why algorithms?

- Knowledge of data structures & algorithms is a common denominator for CS students
- An imperfect proxy to evaluate problem-solving skills

What to expect

- At least 1 coding problem focusing on data structures and algorithms
- You will need to:
 - Explain your approach and its correctness
 - Analyze time and space complexity of your solution
 - Write clean code in an editor or on a whiteboard
 - Usually in the language of your choice
 - Test your code and iterate on it

mock interview

When given a problem statement

- **Always** tell your interviewer if you've seen the problem before!
- Make sure you understand the problem
 - **Don't make any assumptions.**
 - When in doubt, ask if you are allowed to assume something
 - Ask clarifying questions
 - Verify that you agree on a desired output for a test input

Brainstorming approaches

- **Your process is more important than your output**
- Talk through multiple approaches
- Draw diagrams or run through test cases
- At a high level, explain your chosen approach and reasoning
 - Convince your interviewer this will work (efficiently)

Writing code

- **Your process is more important than your output**
- Communicate your progress clearly and out loud
- Code quality matters
 - Should be understandable, not just correct
 - Break up your logic into helper functions where appropriate
 - Don't name your variables foo, bar and baz
 - If at a whiteboard: talk to your interviewer explicitly about this

mock interview pt. II

Coding on a Computer

- Dilemma:
 - It's really hard to get code to run correctly the first time
 - If you test every line of your code as you write it, it takes forever and looks bad
- A good balance:
 - break your code into helper functions and test them

Debugging on a Computer

- Same dilemma
 - Don't stare at your code
 - Don't make random changes and rerun
 - Run your code when you think it will be helpful
- Have a systematic approach
 - Divide and conquer

Coding/Debugging on a Whiteboard

- This is different, practice it too (ask which one you should expect)
 - Watch out for running out of space
 - Refactoring or reordering lines will be hard
 - Get good at debugging by stepping through code in your head

Final tips

- It's better to over-communicate than under-communicate
- Listen carefully to your interviewer for hints/cues
- Solving problems well and writing good code are necessary but *not* sufficient for being a successful interviewee

the closing

Asking questions

- Think of this as a reverse interview - make the most of it
- Things you might want to hear about:
 - Company culture
 - Learning and growth opportunities
 - Types of problems you'd be working on
 - Personal paths of engineers you meet

After the Interview

Learning from interviews

- Understand that interview performance can be high variance^[1]
- View every interview as a chance for realistic practice
- Don't get discouraged

^[1]<https://blog.interviewing.io/technical-interview-performance-is-kind-of-arbitrary-heres-the-data/>

Q&A

cs50.ly/quora