Taking on the Technical Interview

Interview training with Google, Pinterest, and Stanford

Preparing for interviews

Technical interview

Coding

Data structures and algorithms

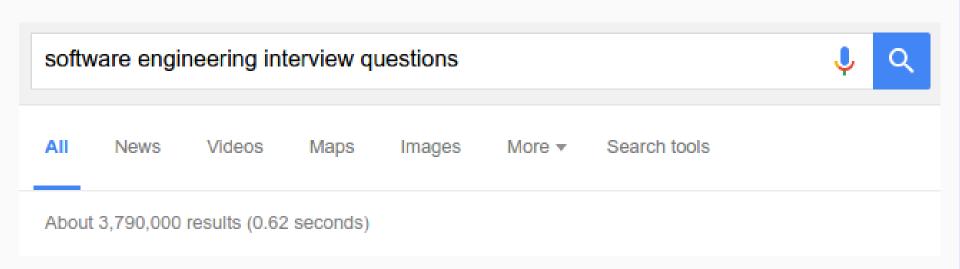
Theory

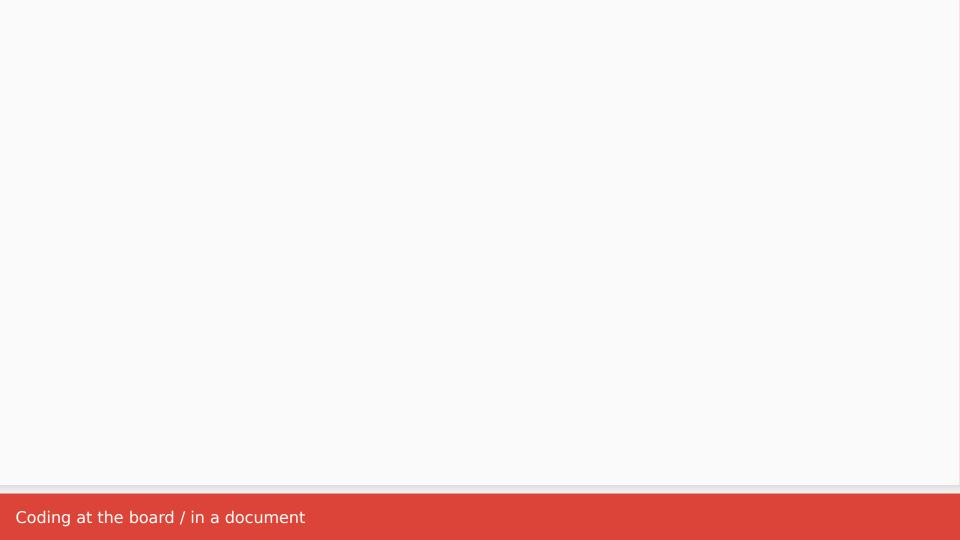
Testing

Design

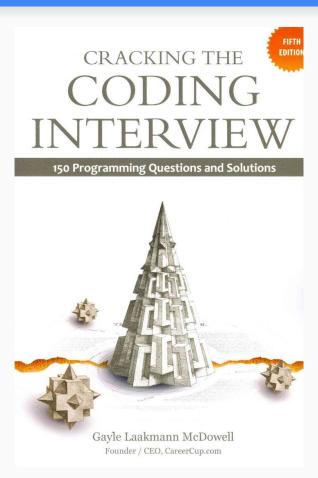


Practice, practice, practice





Cracking the coding interview



Coding — Technical tips

Listen to your interviewer

Pick your programming language carefully. Know common libraries.

There are usually multiple correct answers. Take the time to think. Pick carefully.

Style doesn't matter except when it confuses you

Use decomposition

Test your own code, think about edge cases

Data structures and Algorithms

Arrays Various sorting

Lists algorithms

Trees Tree traversals

Hashtables Recursion

Graphs Dynamic programming

Heaps Dijkstra's algorithm

Stacks

Traveling salesperson

Queues

5 2 4 6 1 3

Theory

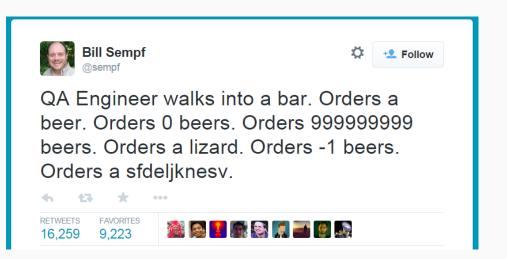
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Testing



Testing



Testing for coding

Types of testing

Test your own code!

Mocks/stubs/fakes

Testing-specific questions

Be systematic about test cases

Test design

Edge cases, extreme cases, random testing

Large scale testing

Re-evaluate your code

Design

Start with a naive implementation

There is no one right answer. There isn't one best algorithm.

Make it clear that you are analyzing the tradeoffs.

Ask a lot of questions.

Focus a bit on the numbers. Analyze the scale of the problem.

Don't worry if you don't finish.

Non-technical tips

Asking questions to clarify the problem

Verbalizing your thought process

Make sure you're justifying (and vocalizing) your assumptions

Have some questions prepared for your interviewer — just **don't** ask about how you did.

It's better to say something wrong than to say nothing

Questions?

Me: "How is it we assume that Dinosaurs just roared, they could have talked like us, right?"

Interviewer: "I meant questions about the job"

Practice!

Practice Questions: Round 1

Freshmen / Sophomores: Juniors / Seniors:

https://goo.gl/vU02Be https://goo.gl/ssll1z

Practice Questions: Round 2

Freshmen / Sophomores: Juniors / Seniors:

https://goo.gl/XoEDWX https://goo.gl/xW4c45