Software Engineering Interviews

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Companies I’ve Interviewed

- Wireless Generation
- Lockheed Martin
- Microsoft
- Amazon
- Dropbox
- Linkedin
- Quora
- Facebook
- Google
Companies I’ve Worked For

- Lockheed Martin (intern, FAA contract, 2008)
- Microsoft (SDET, Exchange Server, 2010-2011)
- Facebook (Software Engineer, 2012)
- Google (intern, Google Compute Engine, 2013)
- +Teaching Assistant, Instructor, and other student work
Common Interview Elements

- Able to apply online; Referral from an employee helps
- Coding on Google Docs, tny.cz, etc
- Hashing, sorting, runtime analysis
- Most common question: Given an array of ints and a target int, determine if there are two elements of the array that sum to the target
- Design and testing questions
- 1-2 Phone screen/on-campus interviews, then full day of onsite interviews
Microsoft Interviews

- 1-2 phone screen/on-campus interviews, 3-5 on-site
- More interviews is a good sign; so is a nice hotel
- Algorithms, C#, systems, testing
- Specifically:
  - a Line class
  - cascading exceptions in C#
  - testing a TV set
  - strtok in C
  - Markov chain steady-state probability
MS Interview Resources

- https://en.wikipedia.org/wiki/Microsoft_interview
Facebook Interviews

- 1-2 coding phone screens, 5 onsite: 3 coding, 1 design, 1 “company fit”
- Expect hard questions; ~25% of new hires have PhDs.
- PHP/Python/Networking/Web Development helps.
- Onsite visit/Menlo Park office is great to tour
Interview Tips

● Start coding interviews with any solution, refine/optimize afterward. Spend less than a minute before starting to write.
● Remember that they’ll probably ask for a runtime analysis after you write a solution; track it as you go.
● Library function names, etc, don’t matter because your IDE would manage that for you/you could look it up. Don’t worry about e.g. “MyList.count” vs “MyList.length” vs “MyList.size()”. Tell the recruiter if you’re not sure and then pick one.
● You can usually assume the existence of any basic utility functions, like “random()”, unless working on os kernel code.