

# Analysis of Algorithms

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## Participation in a Programming Contest

**Contest:** Google Foobar Challenge

**Date:** 12/2/2017

**Website:** <https://google.com/foobar> (Only accessible if prompted)

The Google Foobar challenge is a challenge that comes up if you frequently search for code related material on google. While not strictly a programming contest, you are presented with 5 problems of increasing difficulty on a secret portal accessible only through the search prompt. The legends say that if you complete all 5 challenges, Google will extend a job offer to you.

During the weekend, I completed the first two challenges, which were relatively simple data structure questions designed to filter out beginner coders. While not difficult, the second problem forced me to think a bit because it seemed naively easy but had a execution time constraint. The third problem involved XORing a specific sequence of numbers together, which upfront also seemed naively easy. This problem also had a time constraint on it to prevent you from solving it the naive way. Unlike the algorithms questions in class, this problem required you to know clever math tricks and properties of XOR so that you could deterministically calculate parts of the problem instead of using a loop to XOR all the numbers of the sequence together. I had a general idea of how to do it, but ultimately ran out of time for the problem because of homework and obligations to other classes. Having participated in CTFs before (crypto-themed programming contests), I had a vague idea of the scope and objective of this challenge. Overall, it was quite fun and gave me an excellent excuse to procrastinate, so I'll probably retry the third problem in the future.

You can find all my notes at <http://omgimanagerd.tech/notes>. If you have any questions, comments, or concerns, please contact me at [alvin@omgimanagerd.tech](mailto:alvin@omgimanagerd.tech)