

# **Algorithms and Data Structures**

**Week 1**

**Georg Hasebe — 25.09.2023**

# Outline

- Introduction
- Organisation
- Motivation
- Exercise Sheet 0

# Introduction

- Georg Hasebe
- [georg.hasebe@inf.ethz.ch](mailto:georg.hasebe@inf.ethz.ch)
- <https://ghasebe.github.io>



+41 77 230 140

# Join the D-INFK discord server!



<https://discord.gg/DQ3d4beE>

# Organisation



<https://cadmo.ethz.ch/education/lectures/HS23/DA/index.html>

# Lecture Structure

## Three Parts

1. Lecture (Theory)
2. Exercise
3. Programming (CodeExpert)

# Lecture Structure

## Two Exams

1. Theory exam (60%)
2. CodeExpert exam (40%)

# Lecture Structure

## Bonus Points

- Exercise points (bonus questions)
- Peer grading points (next week)
- CodeExpert

Up to 0.25 bonus points! [Further information.](#)



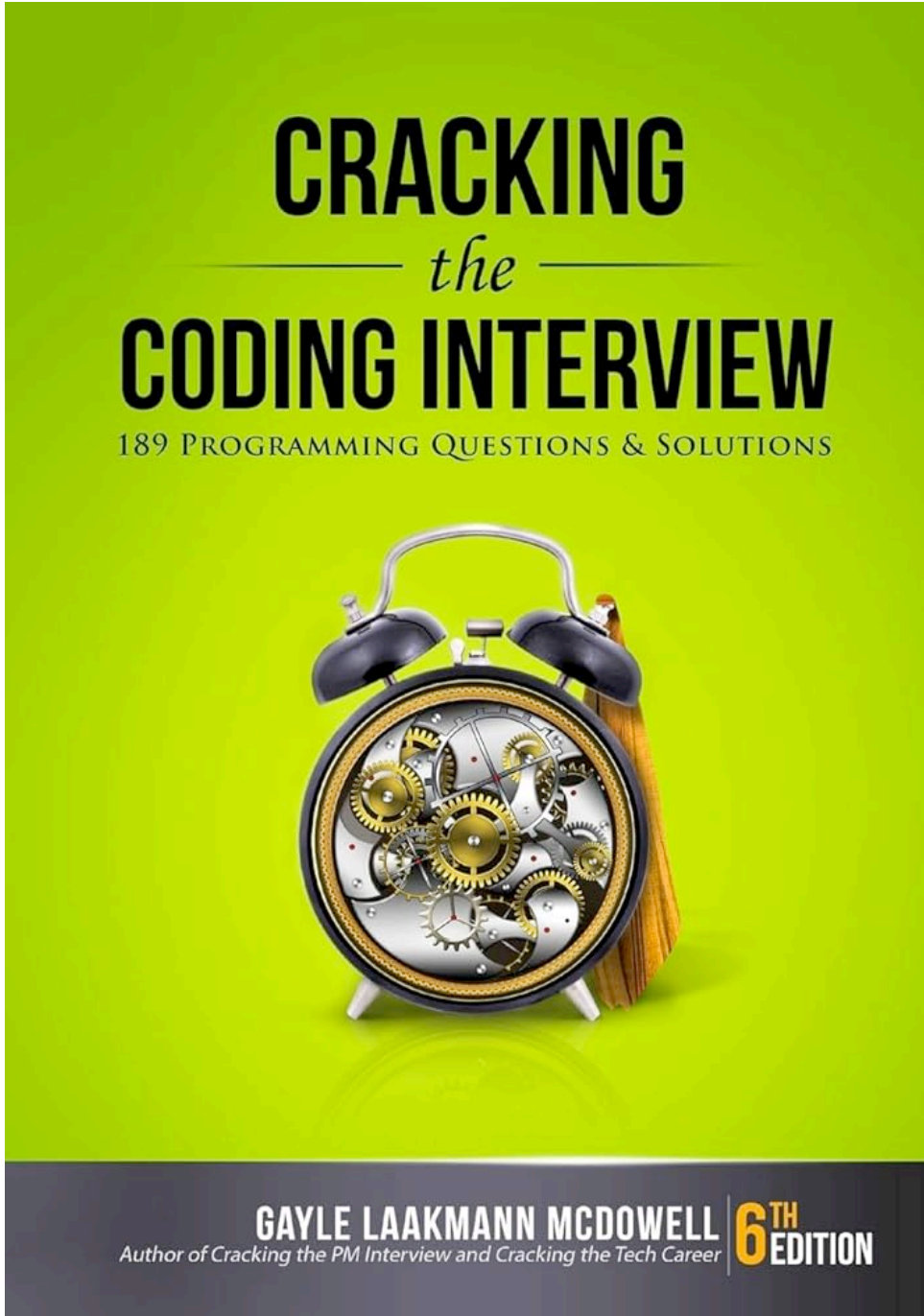
# Submissions and Materials

- Submission will be made using poly box: <https://polybox.ethz.ch>
- All the materials used in the exercise session will be published on my website: <https://ghasebe.github.com>

# Motivation

- Ask questions!
- Solve as many exercise problems as possible!
  - Bonus (+0.25)
  - Exam preparation

# Technical Interviews

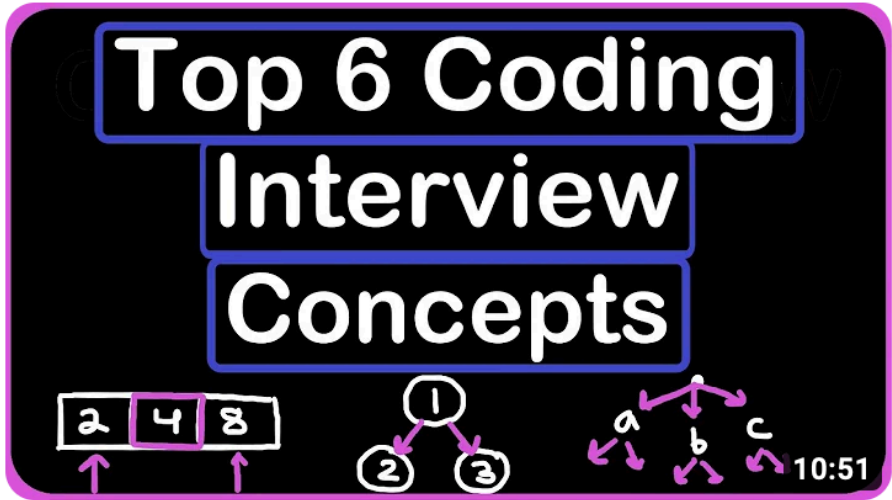


**Google Coding Interview With A Normal Software Engineer**  
1,4 Mio. Aufrufe • vor 2 Jahren

Clément Mihailescu ✓

In this video, I conduct a mock Google coding interview with a normal software engineer, Keerti Purswani, who's a software ...

Sample Inputs | Dynamic Programming | Write in Pseudocode | Pseudo Code | Green Percentage |... 11 Stellen ▾

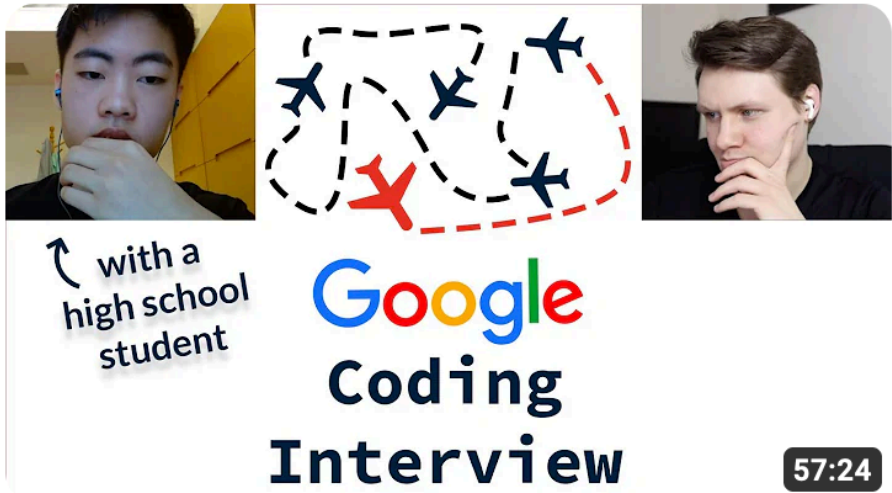


**Top 6 Coding Interview Concepts (Data Structures & Algorithms)**  
255.948 Aufrufe • vor 1 Jahr

NeetCode ✓

0:00 - Intro 1:16 - Number 6 3:12 - Number 5 4:25 - Number 4 6:00 - Number 3 7:15 - Number 2 8:30 - Number 1 #coding ...

Intro | Number 6 | Number 5 | Number 4 | Number 3 | Number 2 | Number 1 7 Kapitel ▾



**Google Coding Interview With A High School Student**  
3,6 Mio. Aufrufe • vor 3 Jahren

Clément Mihailescu ✓

In this video, I conduct a mock Google coding interview with a high school student, William Lin, who's also a competitive ...

Introduction | The Interview | Graphing | Algorithm | Representation | Edges | Adding Edges | Coding |... 11 Kapitel ▾

## Featured

<b>The LeetCode Beginner's Guide</b> 4 Chapters 17 Items 0% ▶	<b>LeetCode's Interview Crash Course</b> <b>Data Structures and Algorithms</b> 13 Chapters 148 Items 0% ▶	<b>Easy Collection</b> <b>Top Interview Questions</b> 9 Chapters 48 Items 0% ▶	<b>Detailed Explanation of</b> <b>Dynamic Programming</b> 6 Chapters 55 Items 0% ▶
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**General Advice: Patience.**

# Exercise Sheet 0

<https://ghasebe.github.io/>