



**九章算法** 帮助更多中国人找到好工作

扫描二维码，获取“简历”“冷冻期”“薪资”等求职必备干货

九章算法，专业的IT 求职面试培训。团队成员均为硅谷和国内顶尖IT企业工程师。目前开设课程有《九章算法班》《系统设计班》《Java入门与基础算法班》《算法强化班》《Android 项目实战班》《Big Data 项目实战班》等。

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## 系统设计面试准备 – 参考资料

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here are some good references for each question. The references here are slides and articles.

### Design a CDN network

Reference:

- [Globally Distributed Content Delivery](#)

### Design a Google document system

Reference:

- [google-mobwrite](#)
- [Differential Synchronization](#)

### Design a random ID generation system

Reference:

- [Announcing Snowflake](#)
- [snowflake](#)

### Design a key-value database

Reference:

- [Introduction to Redis](#)

### Design the Facebook news feed function

Reference:

- [What are best practices for building something like a News Feed?](#)
- [What are the scaling issues to keep in mind while developing a social network feed?](#)
- [Activity Feeds Architecture](#)

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## Design the Facebook timeline function

Reference:

- [Building Timeline](#)
- [Facebook Timeline](#)

## Design a function to return the top k requests during past time interval

Reference:

- [Efficient Computation of Frequent and Top-k Elements in Data Streams](#)
- [An Optimal Strategy for Monitoring Top-k Queries in Streaming Windows](#)

## Design an online multiplayer card game

Reference:

- [How to Create an Asynchronous Multiplayer Game](#)
- [How to Create an Asynchronous Multiplayer Game Part 2: Saving the Game State to Online Database](#)
- [How to Create an Asynchronous Multiplayer Game Part 3: Loading Games from the Database](#)
- [How to Create an Asynchronous Multiplayer Game Part 4: Matchmaking](#)
- [Real Time Multiplayer in HTML5](#)

## Design a graph search function

Reference:

- [Building out the infrastructure for Graph Search](#)
- [Indexing and ranking in Graph Search](#)
- [The natural language interface of Graph Search and Erlang at Facebook](#)

## Design a picture sharing system

Reference:

- [Flickr Architecture](#)
- [Instagram Architecture](#)

## Design a search engine

Reference:

- [How would you implement Google Search?](#)
- [Implementing Search Engines](#)

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## Design a recommendation system

Reference:

- [Hulu's Recommendation System](#)
- [Recommender Systems](#)

## Design a tinyurl system

Reference:

- [System Design for Big Data-tinyurl](#)
- [URL Shortener API](#)

## Design a garbage collection system

Reference:

- [Baby's First Garbage Collector](#)

## Design a scalable web crawling system

Reference:

- [How can I build a web crawler from scratch?](#)

## Design the Facebook chat function

Reference:

- [Erlang at Facebook](#)
- [Facebook Chat](#)

## Design a trending topic system

Reference:

- [Implementing Real-Time Trending Topics With a Distributed Rolling Count Algorithm in Storm](#)
- [Early detection of Twitter trends explained](#)

## Design a cache system

Reference:

- [Introduction to Memcached](#)

推荐书籍:

- [Cracking the Coding Interview](#)

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- 《大话设计模式》只读前两章，和最后一章
  - 《编程之美》

想了解更多关于系统设计的面试要求和准备建议，[欢迎参加《系统设计班》免费试听课](#)。

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