System Design Interesting Reads

Basics:

System Design Cheatsheet · GitHub
System Design Primer
How to Succeed in a System Design Interview
Approach a System Design Interview
System Design, Chapter 2: Sharding
System Design, Chapter 3: Load Balancing
System Design, Chapter 4: Caching
System Design, Chapter 5: Indexes in Databases
System Design, Chapter 6: Proxies
System Design, Chapter 7: Queues

Milestone Research Papers:

The Google File System
Dynamo: Amazon's Highly Available Key-value Store
MapReduce: Simplified Data Processing on Large Clusters
TAO: Facebook's Distributed Data Store for the Social Graph
Kafka: a Distributed Messaging System for Log Processing
Bigtable: A Distributed Storage System for Structured Data
Spark: Cluster Computing with Working Sets

Popular Datastores:

Choose the right data store - Azure Application Architecture Guide
Redis vs Aerospike
Elasticsearch vs MongoDB
MongoDB vs CouchDB

Cassandra

Cassandra writes in depth. Surprises you can expect from a… | by Andrzej Ludwikowski
Cassandra Data Modelling
Why Cassandra writes faster than Traditional RDBMS?
When to use Cassandra and when to steer clear
Log Structured Merge Trees
How is data read? | Apache Cassandra 3.0

Redis

Redis Persistence – Redis
Goodbye Cache: Redis as a Primary Database

Transactions in Redis
Partitioning: how to split data among multiple Redis instances. – Redis
Horizontal scaling in/out techniques for redis cluster
Redis Cluster
Key Problems with Redis Persistence

Elasticsearch
Elasticsearch from the Top Down
Uses of Elasticsearch, and Things to Learn
Elasticsearch from the Bottom Up, Part 1

PostgreSql
Comparing Data Stores for PostgreSQL - MVCC vs InnoDB
Postgres MVCC
PostgreSQL 10: Partitions of partitions!

Mongo
How To Decide If MongoDB Is Right For You

Interesting Blogs:

All Company Blogs !!
Building Reliable Reprocessing and Dead Letter Queues with Kafka
A Practical Introduction to the Internals of Kafka Storage
How To Design A Scalable Rate Limiting Algorithm
Data Compression for Large-Scale Streaming Experimentation | by Netflix Technology Blog
WhatsApp-Engineering Inside-1. Real Time messaging are now an…
WhatsApp-Engineering Inside-2. In “WhatsApp-Engineering Inside-1” we…
NETFLIX system design. System Design
A Design Analysis of Cloud-based Microservices Architecture at Netflix
Microservice Architecture pattern
Resiliency: Cache Me If You Can
Microservices Design Patterns
Kafka Message Delivery Semantics
Replication In Depth - Kafka
Design Decisions for Scaling Your High Traffic Feeds
The Architecture Twitter Uses to Deal with 150M Active Users, 300K QPS, a 22 MB/S Firehose, and Send Tweets in Under 5 Seconds
Instagram Saves Switching to Cassandra from Redis
Jepsen Blog
Aerospike Developer Blog – Medium
Patterns for distributed transactions within a microservices architecture

A Guide to Atomikos
How to do distributed locking
Taming Garbage Collection

Real World Videos:

Jeff Dean's talk at Stanford
Building Billion user Load Balancer at Facebook
Netflix Guide to Microservices
Amazon DynamoDB deep dive
Twitter: Timelines at Scale

Advanced Techniques:

Bloom Filter
Cache Stampede
Request Coalescing
Three Tier Caching
Consistent Hashing

Actual Questions:

Easy
Design Chess
Design Tic-Tac-Toe
Design Elevator System

Medium
Design Uber
Design Instagram
Design Facebook Messenger
Design URL Shortener
Design Dropbox / Google Drive
Design News Feed System / Quora
Design Price Surging Service
Design AirBnb

Hard
Design YouTube / Netflix
Design Web Crawler