

References

- ✓ Justin Miller's Software Architect Guide
- ✓ O'Reilly - Software Architecture

Find the detailed version of this roadmap along with resources, progress tracking and other resources.

<https://roadmap.sh>

Software Architect

Software Architecture

Describes how an application is built including its components, how they interact with each other, environment in which they operate and so on.

Software Architect

A software expert who makes high level design choices, including technical standards, tools, design principles, platforms to be used, etc

Understand the Basics

What is Software Architecture

What is a Software Architect

Types of Architects

Software Architect

Solution Architect

Enterprise Architect

Design and Architecture

Decision Making

Simplifying things

How to Code

Documentation

Important Skills to Learn

Technical Skills

Programming Languages

Java / Kotlin / Scala

Python

Ruby

Go

JavaScript / TypeScript

.NET framework based

Tech decisions

Design & Architecture decisions

Requirements Elicitation

Documentation

Enforcing standards

Collaborate with Others

Consult & Coach Developers

Responsibilities

Serverless

Microservices

Architectures

Client/Server

Layered

Distributed Systems

Service Oriented

Communication

Estimate and Evaluate

Balance

Consult and Coach

Marketing Skills

Atlassian Tools

Trello

Slack

Git

Tools

Patterns and Design Principles

OOP

MVC, MVP, MVVM

CQRS, Eventual Consistency

Actors

ACID, CAP Theorem

SOLID

Test Driven Development

Domain Driven Design

Security

Hashing Algorithms

PKI

OWAS

Auth Strategies

Working with Data

APIs and Integrations

Web, Mobile

Analytics

Apache Spark

Hadoop

Datawarehouses Principles

Hadoop, Spark, MapReduce

ETL, Datawarehouses

SQL Databases

NoSQL Databases

GRPC

ESB, SOAP

GraphQL

REST

BPM, BPEL

Messaging Queues

Reactive, Functional Programming

React, Vue, Angular

SPA, SSR, SSG

PWA

Microfrontends

W3C and WHATWG Standards

Frameworks

BABOK

IAF

UML

TOGAF

PMI, ITIL, Prince2, RUP

Certifications

Agile, Scrum

LeSS

SaFE

Networks

OSI, TCP/IP Model

HTTP, HTTPS

Proxies

Firewalls

Enterprise Software

MS Dynamics

SAP EPR, HANA, Business Objects

EMC DMS

IBM BPM

Salesforce

Infrastructure as Code

Cloud Providers

Serverless Concepts

Linux / Unix

Service Mesh

CI / CD

Containers

Cloud Design Patterns

Operations Knowledge

Visit DevOps Roadmap

Keep learning