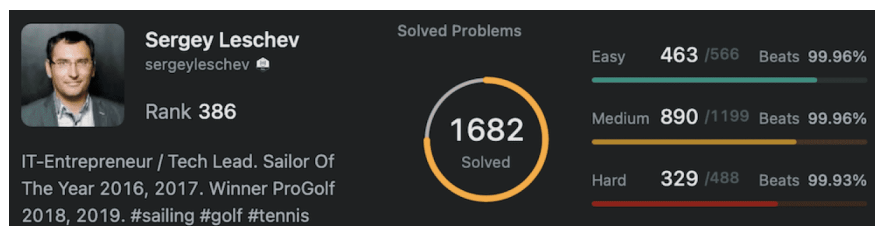# S.Leschev iOS Developer Roadmap

🏆 Awards

Ranking #Dev: Global TOP 300 (Certificate)

Languages: Swift, Shell, Database (T-SQL, PL/SQL, MySQL), Concurrency (Python3).

Algorithms: linked lists, binary search, hash table, queue/stack, dfs/bfs, sort, heap/hash, two pointers, sliding window, tree, greedy problems etc.

Golden Award Muad'Dib's Challenge

Languages: Swift.

Algorithmic skills: Dynamic programming, Greedy algorithms, Binary search, Stack and Queues, Sorting, Time Complexity.

Contest: Algorithms, Data Structures.

Tapping on a link will take you to relevant certificates.

iOS

- ☑ `Languages`
  - ☑ `Swift`
    - ☑ Closures
    - ☑ `Initializers`
    - ☑ Generics
    - ☑ `Protocols`
    - ☑ `Structs`
    - ☑ `Enums`
    - ☑ Runtime
      - ☑ Method dispatch
- ☑ `Memory management`
  - ☑ `Stack and Heap`
  - ☑ `Value vs Reference type`
  - ☑ MRC
  - ☑ `ARC`
- ☑ Weak references
  - ☑ `Retain cycles`
  - ☑ Garbage collection
  - ☑ `Memory leaks`
  - ☑ Shallow and deep copying
  - ☑ Autorelease pool
- ☑ `Multithreading and concurrency`
  - ☑ POSIX and NSThreads
  - ☑ Perform selector family
  - ☑ `GCD`
  - ☑ `NSOperation(Queue)`
  - ☑ `Runloop`
  - ☑ `Synchronization`
  - ☑ Problems
    - ☑ Race condition

- ☑ Work in background mode
- ☑ Software Architecture
  - ☑ Design Patterns
    - ☑ Cocoa
      - ☑ Abstract Factory
        - ☑ Class cluster
      - ☑ Adapter
      - ☑ Command Pattern
      - ☑ Chain of Responsibility
      - ☑ Decorator
        - ☑ Delegation
        - ☑ Categories
      - ☑ Facade
      - ☑ Memento
      - ☑ Observer
      - ☑ Proxy
      - ☑ Receptionist
      - ☑ Singleton
      - ☑ Template Method
      - ☑ MVC
    - ☑ Architectural
      - ☑ MVC
      - ☑ MVVM / UIKitPlus
      - ☑ MVP
      - ☑ Clean architecture
        - ☑ VIPER
        - ☑ RIBs
      - ☑ Coordinators
    - ☑ Creational
      - ☑ Factory
      - ☑ Abstract Factory
      - ☑ Builder
      - ☑ Factory Method

- [x] Object Pool
- [x] Prototype
- [x] [Singleton](#)
- [x] `Structural`
  - [x] Adapter
  - [x] Bridge
  - [x] Composite
  - [x] Decorator
  - [x] Facade
  - [x] Flyweight
  - [x] Proxy
- [x] `Behavioural`
  - [x] Command
  - [x] Chain of responsibility
  - [x] Interpreter
  - [x] Iterator
  - [x] Mediator
  - [x] Memento
  - [x] Observer
  - [x] State
  - [x] Strategy
  - [x] Visitor
- [x] Concurrency
  - [x] Anti-pattern
- [x] `Design Principles`
  - [x] `SOLID`
  - [x] `Inversion of Control`
    - [x] `Dependency Injection`
    - [x] Service Locator
  - [x] [Protocol-Oriented Programming](#)
- [x] `Dependencies management`
  - [x] [Cocoapods](#)
  - [x] [Carthage](#)

- [x] Swift Package Manager
- [x] Project structure and File/Group organisation
- [x] `Version Control Systems`
  - [x] `Git`
- [x] Debugging
  - [x] Instruments
  - [x] Best practices
    - [x] Checklists
- [x] UX
- [x] `Caching and Persistency`
  - [x] Core Data
  - [x] Realm
- [x] `Testing`
  - [x] `Unit Tests`
  - [x] Snapshot Tests
  - [x] Functional test
  - [x] UI Tests
  - [x] TDD
  - [x] BDD
- [x] Performance optimization
  - [x] Increase FPS
  - [x] Decrease memory footprint
- [x] Code signing
- [x] Tools
  - [x] IDE
    - [x] Xcode
      - [x] Interface Builder
  - [x] Swiftlint
  - [x] Sourcery
  - [x] Fastlane
  - [x] Charles
- [x] Continuous Integration
  - [x] Github Actions / Jenkins

- [x] Xcode server
- [x] Security
  - [x] Keychain
- [x] tvOS
  - [x] Focus interactions
- [x] WatchKit
- [x] Programming Paradigms
  - [x] Object-Oriented
  - [x] Functional
    - [x] Functional Reactive Programming Frameworks
      - [x] React Native
      - [x] RxSwift
      - [x] RxRealm, RxDataSources
      - [x] Combine

Computer Science

- ☑ `Computer Science knowledge`
  - ☑ `Algorithms` `cert`
    - ☑ `Sorting` `cert`
    - ☑ `Graph Theory` `cert`
      - ☑ `Trees` `cert`
    - ☑ `Strings` `cert`
    - ☑ Greedy `cert`
    - ☑ Dynamic Programming `cert`
    - ☑ Bit Manipulation `cert`
    - ☑ `Recursion` `cert`
    - ☑ Game Theory `cert`
    - ☑ NP Complete `cert`
    - ☑ `Big-O notation` `cert`
  - ☑ `Abstract Data Types` `cert`
    - ☑ `Stack` `cert`
    - ☑ `Array` `cert`
    - ☑ `List` `cert`
    - ☑ `Map` `cert`
    - ☑ Multimap `cert`
    - ☑ `Set` `cert`
    - ☑ Multiset (Bag) `cert`
    - ☑ `Graph` `cert`
      - ☑ `Tree` `cert`
    - ☑ `Queue` `cert`
    - ☑ Priority Queue `cert`
    - ☑ Double-ended priority queue `cert`
    - ☑ Double-ended queue `cert`
  - ☑ `System design`
    - ☑ Design large-scale systems / Amazon, Dropbox, Instagram, Facebook, Netflix, Pinterest, Twitter, Uber, Youtube

Project Guidelines

A set of best practices in my projects.

- ☑ Git
- ☑ Documentation
- ☑ Environments
- ☑ Code Style
- ☑ Logging
- ☑ API

Licenses & certifications

- 🏆 LeetCode Global TOP 300 (Swift: Certificate, Sources: Swift).
- 🏆 Golden Award Muad'Dib's Challenge (Swift: Certificate, Sources: Swift).
- LinkedIn Skill Asessment (Mobile): Swift (Programming Language), Object-Oriented Programming (OOP), Objective-C, C++, Ionic, JSON, XML, Android, Kotlin, Maven, Java, REST APIs.
- 🍎 Health & Fitness iOS App / Fitness Motivation / AppStore (Sources: SwiftUI) @ S. Leschev.
- 🍎 Utility MacOS App / Calc-It / Core (Sources: Swift) @ S. Leschev.

Latest Projects

[iOS] Live Stream & Video Chat is the best streaming and video chatting tool.

Role: Senior iOS Developer, Tech Lead. Development architecture and new features.

Tech Stack:

- Swift 5+.
- VIPER (Dependency Injection, Assembly, Services, Interactor, Presenter, State, Adapter) + MVVM (Combine, PromiseKit).
- Alomofire, Decodable, Combine.
- GCD/Operations.
- Agora Video SDK, Chat SDK, Beautification SDK. WebRTC. GRPC.
- Modular architecture (Frameworks, Development Pods).
- SwiftGen (Localization, Image, Colors).
- SwiftLint.
- Auth: Facebook, Google, Apple ID.
- Firebase, Crashlytics, Amplitude, AppsFlyer.
- Push-notifications (Firebase).
- UIKit, Autolayout, Core Animations, Skeleton, Lottie.
- Git (Flow, CodeReview), Figma.

[iOS] Health & Fitness iOS App

Role: Senior iOS Developer, Tech Lead. Development architecture and new features.

Tech Stack:

- Swift 5+.
- Clean Swift Architecture.
- Alamofire, ObjectMapper.
- GCD/Operations.
- AVFoundation, Streaming: HLS (Cloudflare/nginx).
- AirPlay [Composition (video+audio), Secondary Display].
- Realm.
- Modular architecture (Frameworks, Development Pods).
- SwiftGen (Localization, Image, Colors).
- SwiftLint.
- Auth: Facebook, Google, Apple ID, Fitbit.
- Amplitude, Crashlytics, AppsFlyer (+OneLink).
- Analytics: Facebook (SKAd + Conversions API).
- Push-notifications (OneSignal).
- UIKit, Autolayout, Core Animations, Lottie.
- Git (Flow, CodeReview), Zeplin, Figma, Sketch.

[iOS] Health & Fitness iOS App (Motivations Coach, Pet Project)

Role: iOS Developer.

Tech Stack:

- SwiftUI.
- Watch Extension (WatchOS).
- AppClip Extension.
- Widget (iOS 14).
- ObjectMapper.
- URLSession.
- Keychain.
- Lottie.
- Push Notifications.
- GCD/Operations.
- Git, Figma, Sketch.

Website: motivations.coach

Sources: SwiftUI

Contacts

I have a clear focus on time-to-market and don't prioritize technical debt.

🛩 #startups #management #cto #swift #typescript #database

📧 Email: sergey.leschev@gmail.com

👋 LinkedIn: https://linkedin.com/in/sergeyleschev

👋 Twitter: https://twitter.com/sergeyleschev

👋 Github: https://github.com/sergeyleschev

🌎 Website: https://sergeyleschev.github.io

🖨 PDF: [Download](#)

ALT: SIARHEI LIASHCHOU