S.Leschev FullStack Developer Roadmap
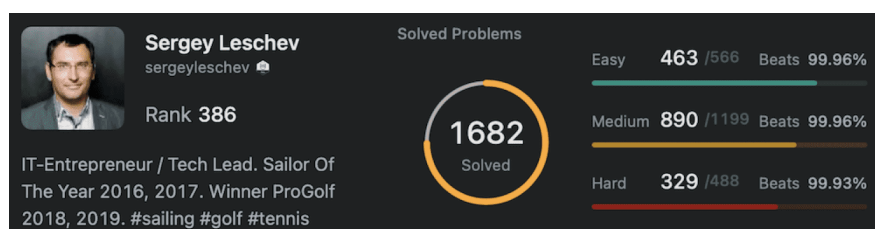

🏆 Awards

Ranking #Dev: Global TOP 300 ([Certificate](#))

Sergey Leschev
sergeyleschev 🏠

Rank **386**

IT-Entrepreneur / Tech Lead. Sailor Of The Year 2016, 2017. Winner ProGolf 2018, 2019. #sailing #golf #tennis

Solved Problems

1682 Solved

Easy	**463** /566	Beats	**99.96%**
Medium	**890** /1199	Beats	**99.96%**
Hard	**329** /488	Beats	**99.93%**

Languages: TypeScript, 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 for the Year of the Tiger Challenge

Algorithmic skills: Dynamic programming, Greedy algorithms, Catepillar method, Binary search algorithm, Fibonacci numbers, Euclidean algorithm, Sieve of Eratosthenes, Prime and composite numbers, Maximum slice problem, Stack and Queues, Sorting, Time Complexity, Arrays, Prefix Sums, Leader, etc.

Contest: Algorithms, SQL, Data Structures, Bitwise operations (bit-ops), Frontend.

Tapping on a link will take you to relevant certificates.

Front-End

- ☑ Basics
  - ☑ HTML
    - ☑ Learn the basics of HTML
    - ☑ Make a few pages as an exercise
  - ☑ CSS
    - ☑ Learn the basics of CSS
    - ☑ Style pages from previous step
    - ☑ Build a page with grid and flexbox
  - ☑ JS Basics
    - ☑ Get familiar with the syntax
    - ☑ Learn basic operations on DOM
    - ☑ Learn mechanisms typical for JS (Hoisting, Event Bubbling, Prototyping)
    - ☑ Make some AJAX (XHR) calls
    - ☑ Learn new features (ECMA Script 6+)
    - ☑ Additionally, get familiar with the jQuery library
- ☑ General Development Skills
  - ☑ Learn GIT, create a few repositories on GitHub, share your code with other people
  - ☑ Know HTTP(S) protocol, request methods (GET, POST, PUT, PATCH, DELETE, OPTIONS)
  - ☑ Get familiar with terminal, configure your shell (bash, zsh, fish)
  - ☑ Studied algorithms and data structures in the university
  - ☑ Studied design patterns in the university
- ☑ Learn React on official website or complete some courses
- ☑ Get familiar with tools that you will be using
  - ☑ Package Managers
    - ☑ npm
    - ☑ yarn
  - ☑ Task Runners

- [x] npm scripts
- [x] gulp
- [x] Webpack
- [x] Rollup
- [x] Parcel
- [x] Styling
  - [x] CSS Preprocessor
    - [x] Sass/CSS
    - [x] PostCSS
    - [x] Less
    - [x] Stylus
  - [x] CSS Frameworks
    - [x] Bootstrap
    - [x] Materialize, Material UI, Material Design Lite
    - [x] Bulma
    - [x] Semantic UI
  - [x] CSS Architecture
    - [x] BEM
    - [x] CSS Modules
    - [x] Atomic
    - [x] OOCSS
    - [x] SMACSS
    - [x] SUITCSS
  - [x] CSS in JS
    - [x] Styled Components
    - [x] Radium
    - [x] Emotion
    - [x] JSS
    - [x] Aphrodite
- [x] State Management
  - [x] Component State/Context API
  - [x] Redux
    - [x] Async actions (Side Effects)

- ☑ Redux Thunk
- ☑ Redux Better Promise
- ☑ Redux Saga
- ☑ Redux Observable
- ☑ Helpers
  - ☑ Rematch
  - ☑ Reselect
- ☑ Data persistence
  - ☑ Redux Persist
  - ☑ Redux Phoenix
- ☑ Redux Form
- ○ MobX
- ☑ Type Checkers
  - ☑ PropTypes
  - ☑ TypeScript
  - ☑ Flow
- ☑ Form Helpers
  - ☑ Redux Form
  - ☑ Formik
  - ☑ Formsy
  - ☑ Final Form
- ☑ Routing
  - ☑ React-Router
  - ☑ Router5
  - ☑ Redux-First Router
  - ☑ Reach Router
- ☑ API Clients
  - ☑ REST
    - ☑ Fetch
    - ☑ SuperAgent
    - ☑ axios
  - ☑ GraphQL
    - ☑ Apollo

- ☑ Relay
- ☑ urql
- ☑ Utility Libraries
  - ☑ Lodash
  - ☑ Moment
  - ☑ classnames
  - ☑ Numeral
  - ☑ RxJS
  - ☑ ImmutableJS
  - ☑ Ramda
- ☑ Testing
  - ☑ Unit Testing
    - ☑ Jest
  - ☑ End to End Testing
    - ☑ Selenium, Webdriver
  - ☑ Integration Testing
    - ☑ Karma
- ☑ Internationalization
  - ☑ React Intl
  - ☑ React i18next
- ☑ Server Side Rendering
  - ☑ Next.js `sources`
- ☑ Static Site Generator
  - ☑ Gatsby
- ☑ Backend Framework Integration
  - ☑ React on Rails
- ☑ Mobile
  - ☑ React Native
- ☑ Desktop
  - ☑ Electron
  - ☑ React Native Windows

Back-End

- ☑ Prerequisites

- ☑ JavaScript

- ☑ NPM

- ☑ Node.js

- ☑ ECMAScript

- ☑ General Development Skills

- ☑ Learn GIT, create a few repositories on GitHub, share your code with other people

- ☑ Know HTTP(S) protocol, request methods (GET, POST, PUT, PATCH, DELETE, OPTIONS)

- ☑ Studied algorithms and data structures in the university

- ☑ Studied design patterns in the university

- ☑ Clean code

- ☑ Web Frameworks

- ☑ Express.js

- ☑ Adonis.js

- ☑ Meteor.js

- ☑ Nest.js

- ☑ Sails.js

- ☑ Koa.js

- ☑ Loopback.io

- ☑ egg.js

- ☑ midway
- ☑ Databases
- ☑ Relational
  - ☑ SQL Server `sources.sql`
  - ☑ PostgreSQL `sources.sql`
  - ☑ MariaDB `sources.sql`
  - ☑ MySQL `sources.sql`
- ☑ Cloud Databases
  - ☑ CosmosDB `sources`
  - ☑ DynamoDB `sources`
- ☑ Search Engines
  - ☑ ElasticSearch
  - ☑ Solr
  - ☑ Sphinx
- ☑ NoSQL
  - ☑ MongoDB `sources`
  - ☑ Redis `sources`
  - ☑ Apache Cassandra
  - ☑ LiteDB
  - ☑ RavenDB
  - ☑ CouchDB
- ☑ Caching
- ☑ Node-Cache
- ☑ Distributed Cache
  - ☑ Redis `sources`
  - ☑ Memcached `sources`
- ☑ Memory Cache
- ☑ Logging
- ☑ Log Frameworks
  - ☑ Node-Loggly

- ☑ Winston
- ☑ Node-Bunyan
- ☑ Morgan
- ☑ Log Management System
  - ☑ Sentry.io
  - ☑ Loggly.com

- ☑ Template Engines

- ☑ Mustache.js

- ☑ Handlebars

- ☑ EJS

- ☑ Pug

- ☑ Nunjunks.js

- ☑ Real-Time Communication

- ☑ Socket.IO

- ☑ Typed Superset

- ☑ TypeScript

- ☑ Flow

- ☑ API Clients
  - ☑ REST
  - ☑ Node-Rest-Client
  - ☑ Axios
  - ☑ GraphQL
  - ☑ Authentication

- ☑ Good to Know
  - ☑ Async.js
  - ☑ PM2
  - ☑ Commander.js

- [x] Passport
- [x] Nodemailer
- [x] Marked
- [x] ESLint

- [x] Testing
  - [x] Unit, Behavior, Integration Testing
  - [x] Jest
  - [x] Jasmine
  - [x] Chai
  - [x] Mocha
  - [x] Enzyme
  - [x] Sinon
  - [x] E2E Testing
  - [x] Selenium
  - [x] Puppeteer

- [x] Task Scheduling
  - [x] Agenda
  - [x] Cronicle
  - [x] Node-Schedule

- [x] MicroServices
  - [x] Message-Broker
  - [x] RabbitMQ
  - [x] Apache Kafka
  - [x] ActiveMQ
  - [x] Azure Service Bus
  - [x] Message-Bus
  - [x] Distribus
  - [x] BusMQ

- [x] Design-Patterns

- [x] JavaScript Algorithms and Data Structures

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
- ☑ Dependencies
- ☑ Tesing
- ☑ Structure and Naming
- ☑ Code Style
- ☑ Logging
- ☑ API

Licenses & certifications

- 🏆 LeetCode Global TOP 300 (TypeScript: Certificate, Sources: TypeScript).
- 🏆 Golden Award for the Year of the Tiger Challenge (TypeScript: Certificate, Sources: Codility).
- LinkedIn Skill Asessment (Front-End): Front-end Development, Angular, React, Javascript, HTML, CSS, jQuery.
- LinkedIn Skill Asessment (Back-End): Node.js, Java, Spring Framework, Scala, C#, .NET Framework, Unity, Python (Programming Language), Django, PHP, C (Programming Language).
- LinkedIn Skill Asessment (Databases): MongoDB, NoSQL, Transact-SQL (T-SQL), MySQL.
- LinkedIn Skill Asessment (Infra/DevOps): Bash, Git, Amazon Web Services (AWS), AWS Lambda, Google Cloud Platform (GCP), Microsoft Azure, Hadoop, IT Operations.

Contacts

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

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

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