

# Sina Momken

JAVA DEVELOPER · BACKEND DEVELOPER

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## Work Experience

### Negah Tech. Holding of Karafarin Bank

Tehran, Iran

JAVA BACKEND DEVELOPER

Sep. 2020 - Present

#### Legacy Internet Bank Project

- Maintenance and development of the legacy Internet Bank project of Karafarin Bank.
- Written in Groovy language with Grails framework for Backend.
- Written in HTML/CSS/JavaScript language with JQuery framework for Frontend.
- Using MVC architecture and Oracle 10g as database.

#### New Unified Omni-Channel Platform Project

- Backend development of the Omni-Channel project of Karafarin Bank to create a unified backend platform for web and mobile clients to connect.
- Written in Java language with Spring Boot framework, using Oracle relational DB, MongoDB NoSql DB and Redis cache.
- Using JPA on top of Hibernate for running simple ORM tasks.
- Using Retrofit and RestTemplate as http client, MapStruct and ModelMapper for mapping between Entities and DTOs, and QueryDSL for executing complex queries.
- Utilizing 4-layers backend architecture (controller, facade, service, repository).
- Consultation on hiring developers for the mobile team.

### Carpino, 3<sup>rd</sup> Ride Hailing app in Iran

Tehran, Iran

SENIOR ANDROID DEVELOPER

Jun. 2019 - Apr. 2020

#### Rewrite of Carpino-Passenger android app from scratch

- Using Kotlin language with Room ORM and SQLite DB.
- Utilizing 3-layers MVVM android architecture with LiveData observables.
- Using modern libraries like Dagger-Android dependency injection and Retrofit http client.

#### Carpino-Driver android app

- Development of intelligent map systems for driver app, like a 3D navigation system similar to Waze but with GPS noise cancellation and Hotzones showing high ride demands.
- Collecting usage and crash data using Firebase Analytics, old Google Analytics, Crashlytics and Adtrace.
- Using 3-layers MVC android architecture with RxJava async library, Retrofit http client and various third party UI libraries.

### Iran's Army Aviation Forces, MND

Tehran, Iran

IT SUPPORT (COMPULSORY MILITARY SERVICE)

Feb. 2018 - Jun. 2019

- Maintenance and management of software, OS, hardware and network of 400+ desktop clients.
- Managing Active Directory and Windows File Sharing servers.
- Administration and configuration of Cisco switches and routers.

### Kaveh Information Services

Tehran, Iran

ANDROID DEVELOPER

Apr. 2015 - Jun. 2016

#### Keloud project

- Design, development and customization of Keloud android app, based on OwnCloud.
- Connecting the app to the novel Keloud authentication, storage and sharing services for synchronizations.

### Sobhe Corp.

Tehran, Iran

ANDROID WEB BROWSER DEVELOPER

Aug. 2013 - Sep. 2013

#### Zolal project

- Development of android version of Zolal web-app.
- Using Mozilla GeckoView browser module to correctly render Farsi/Arabic fonts in old android phones.

### Dadegan Research Group

Tehran, Iran

RESEARCH INTERN

Sep. 2010 - Dec. 2010

#### Projects "Persian Dependency Treebank" and "Valency Lexicon of Persian Verbs"

- Design and implementation of a networked desktop application for annotators so they could easily mark and annotate different parts of the linguistic corpus in parallel.
- Development of a UI and central DB across network using C#.net and Microsoft SQL Server.

## Education

## University of Tehran

M.SC. IN COMPUTER SCIENCE, ALGORITHMS AND COMPUTATION

- **GPA: 17.16/20.00**
- *Thesis title:* An Efficient Algorithm for De Novo Metagenome Assembly.

Tehran, Iran

Sep. 2014 - Sep. 2017

## Iran University of Science and Technology

B.SC. IN COMPUTER ENGINEERING, SOFTWARE MAJOR

- **GPA: 17.58/20.00 (1<sup>st</sup> place)**
- *Thesis title:* Development of an Optimized Web Browser for Android Operating System.

Tehran, Iran

Sep. 2007 - Mar. 2013

## Allameh Helli High School

DIPLOMA IN PHYSICS AND MATHEMATICS

- **GPA: 19.19/20.00**
- *Affiliated with National Organization for the Development of Exceptional Talents (NODET).*

Tehran, Iran

Sep. 2003 - Jun. 2007

## Training

### Java Spring Framework

160 HOURS COURSE BY ALI RAHMANIAN

alirahmanian.com

Jul. 2021 - Nov. 2021

## Skills

### Programming Languages

- **Backend:** Java SE/EE 8 & 11, Groovy, Kotlin, C#, ASP.Net, SQL, JPQL
- **Frontend:** HTML, CSS, JavaScript, Markdown
- **Android:** Java SE 8, Kotlin, XML
- **Embedded Systems:** C/C++, Bash Script, x86 Assembly
- **Scientific:** MATLAB, R

### Frameworks, Libraries & Architectures

- **Backend:** Spring Boot framework, JPA standard, Hibernate ORM, QueryDSL api for type-safe queries, Retrofit http client, Jedis redis client, Spring Data JPA and Spring Data Mongo apis, Grails framework, .Net Framework 4, ASP.Net MVC architecture, familiar with Multi-Modules and Micro-Services architectures
- **Frontend:** JQuery, Bootstrap, a little React.js
- **Android:** MVVM and MVC architectures, RxJava Reactive extensions, LiveData observables, Retrofit http client, Dagger-Android dependency injection, Room ORM, Androidx and Material components
- **Embedded Systems:** a little Qt framework, Linux kernel

### Databases

Oracle, MySQL, SQLite, MS SQL Server, MongoDB, Redis Cache

### Operating Systems

Linux (Debian and RPM based), Windows, a little MacOS, OpenWRT, a little FreeBSD

### Development Tools

Intellij IDEA Ultimate, Android Studio, Visual Studio, Visual Studio Code, TOAD for Oracle, DBeaver, MongoDB Compass, Robo 3T, Redis Desktop Manager, Postman, curl, Docker, WireShark, a little Burp Suite

### Test Tools & Test Suites

JUnit, a little SpringBootTest & MockMvc, NUnit, familiar with TFD, TDD & BDD, Jenkins, Android Espresso Tests

### Bug Tracking, Documentation & Source Control

Jira, Confluence, Bitbucket, Git, GitLab, GitHub, TFS, DokuWiki, LaTeX, Visio, Visual Paradigm, Rational Rose, Asana, Trello

## Honors & Awards

### INTERNATIONAL

2018	<b>Finalist</b> , DEFCON 26th CTF Hacking Competition World Final	Las Vegas, U.S.A
2017	<b>Finalist</b> , DEFCON 25th CTF Hacking Competition World Final	Las Vegas, U.S.A
2014	<b>Finalist</b> , DEFCON 22nd CTF Hacking Competition World Final	Las Vegas, U.S.A
2013	<b>Finalist</b> , DEFCON 21st CTF Hacking Competition World Final	Las Vegas, U.S.A
2011	<b>Finalist</b> , DEFCON 19th CTF Hacking Competition World Final	Las Vegas, U.S.A

### DOMESTIC

2015	<b>3rd Place</b> , WITHCON Hacking Competition Final	Seoul, S.Korea
2017	<b>Silver Prize</b> , KISA HDCON Hacking Competition Final	Seoul, S.Korea
2013	<b>Silver Prize</b> , KISA HDCON Hacking Competition Final	Seoul, S.Korea

## Presentation

## DevFest Seoul by Google Developer Group Korea

Seoul, S.Korea

PRESENTER FOR <HOSTING WEB APPLICATION FOR FREE UTILIZING GITHUB, NETLIFY AND CLOUDFLARE>

Nov. 2017

- Introduced the history of web technology and the JAM stack which is for the modern web application development.
- Introduced how to freely host the web application with high performance utilizing global CDN services.

## 6th CodeEngn (Reverse Engineering Conference)

Seoul, S.Korea

PRESENTER FOR <DEFCON 20TH : THE WAY TO GO TO LAS VEGAS>

Jul. 2012

- Introduced CTF(Capture the Flag) hacking competition and advanced techniques and strategy for CTF

## Writing

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### A Guide for Developers in Start-up

Facebook Page

FOUNDER & WRITER

Jan. 2015 - PRESENT

- Drafted daily news for developers in Korea about IT technologies, issues about start-up.

## Program Committees

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2016 **Problem Writer**, 2016 CODEGATE Hacking Competition World Final

S.Korea

2013 **Organizer & Co-director**, 1st POSTECH Hackathon

S.Korea

## Extracurricular Activity

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### PoApper (Developers' Network of POSTECH)

Pohang, S.Korea

CORE MEMBER & PRESIDENT AT 2013

Jun. 2010 - Jun. 2017

- Reformed the society focusing on software engineering and building network on and off campus.
- Proposed various marketing and network activities to raise awareness.

### PLUS (Laboratory for UNIX Security in POSTECH)

Pohang, S.Korea

MEMBER

Sep. 2010 - Oct. 2011

- Gained expertise in hacking & security areas, especially about internal of operating system based on UNIX and several exploit techniques.
- Participated on several hacking competition and won a good award.
- Conducted periodic security checks on overall IT system as a member of POSTECH CERT.
- Conducted penetration testing commissioned by national agency and corporation.