

## IN SUMMARY

As a highly motivated and senior software architect, while having spent more than 10 years in developing and architecting enterprise and distributed software for international companies, my skills cover a wide variety of development tools and platforms. The enterprise projects which I've been involved include a wide range of technologies, patterns, and concepts based on embedded C, C++, Java, Scala, Python, relational and NoSQL databases, etc. As a senior software engineer, I have strong hands on writing codes with various programming languages including C, C++, Java, Scala, Python, and bash scripting while having best practices and enterprise patterns in mind. As a distributed system engineer, I've always encountered with strict and tough functional and non-functional requirements in which security, performance, data consistency, distribution of resources, fault tolerance, high availability, authentication, and authorization have been among them. Recently, I've been working as an expert software engineer at TomTom as a part of Search team in order to make it better and give the customers a better search experience.

## TECHNICAL SKILLS

- **Programming Langs:** C++11- C11 - Java - Python - Scala
- **Paradigms:** Procedural - OOP - Functional - Multithreading - Multiprocessing - Event Driven Dev. (libuv, Java NIO), Actor Model (akka) - MQM
- **Specifications:** SUS - POSIX - PKCS standards - JavaEE(JPA, JSM, EJB, JavaServlets, JAX-WS, JAX-RS, etc) - Some RFCs (ASN.1, IP, TCP, UDP, DNS, HTTP, etc)
- **Data Stores:** PostgreSQL - MySQL - MongoDB - Redis - Cassandra
- **Computer Science:** Balanced Trees - Graphs - Index Trees - Sort & Search Algs - Compression Algs - Bit Matching Algs
- **Distributed Systems:** DFS - Dist. Processing - Dist. Caching - Dist. Key-Value Stores - FT and HA strategies - DMQ (Kafka)
- **Serialization & RPC:** protobuf - gRPC - Thrift - Json over REST - Java RMI - XMLRPC
- **Cryptography:** OpenSSL - Symmetric Algs (DES, 3DES, AES) - Asymmetric Algs (RSA, DH) - SSL - PKI (CA, Digital Signature, PKCS certs, HSMs and Tokens) - Hash Algs - MACs - Error Detection & Correction Algs
- **Kernel Dev.:** Linux Modules - Linux SysCalls - FreeBSD Modules
- **Machine Learning:** CUDA - Tensorflow - DSP - OpenCV - Supervised & unsupervised learning - Reinforced Learning - Deep Learning
- **Computer Networks:** L3 protocols (ICMP, IP) - L4 protocols (UDP, TCP) - Socket Programming - L3 programming - Wireshark analysis
- **SCMs:** Git - Perforce - Mercurial - Subversion
- **Build Systems:** CMake - Ninja - Gradle - Maven - sbt
- **IDEs:** Vim as IDE - IntelliJ IDEA
- **DevOps Related:** Bash Scripting - Perl - KVM - Docker - Jenkins - Zabbix
- **Operating Systems:** Linux (Ubuntu, Red Hat) - UNIX like OSs (Mac OS, FreeBSD, QNX) - Windows
- **CI:** Jenkins - QuickBuild
- **Scrum:** Jira - Fisheye - Confluence - Bitbucket - Stash - Code Reviews - Pull Requests - Release Chain

## RECENT CAREER

### • TomTom

Netherlands, Amsterdam

September 2017 - December 2018 (1 year, 4 months)

#### Expert Software Engineer

- I was part of the Search team inside the Navigation PU. We were working on different search engines utilizing different kinds of maps, exposing search and POI information services as some RESTful endpoints (NavKit Worker) hosted on AWS/Azure cloud platforms, and as an embedded native engine (NavKit) for QNX, Android and iOS devices.

### • Jeppesen Systems (Boeing)

Sweden, Gothenburg

February 2017 - August 2017 (6 months)

#### Expert Software Engineer

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### • Sahab Pardaz Co.

Iran, Tehran

July 2016 - February 2017 (8 months)

**Deep Learning Research Developer, Enterprise Software Architect, Project Manager** February 2015 - June 2015 (4 months)

**Distributed Systems Architect, Senior Java SE/EE Engineer, C++ Engineer**

### • Adro Co.

Iran, Tehran

June 2016 - February 2017 (9 months)

**Senior Software Architect, Senior C++ Engineer**

### • Noavaran Tejarat Gostar Naeem Co.

Iran, Tehran

April 2015 - October 2016 (1 year, 6 months)

**Chief Technical Officer, Senior Software Architect, Senior C/C++ Developer**

### • Sharif CERT Center

Iran, Tehran

December 2011 - June 2013 (1 years, 6 months)

**Java SE/EE Engineer, C/C++ Engineer**

## FOREIGN LANGUAGES

Persian(**Native**), English(**Fluent**), French(**Intermediate**), Dutch(**Intermediate**)

## EDUCATION

### • 2017 - Present

The Open University

**Bachelor of Science in Physics (Astronomy and Planetary Science)**

### • 2004 - 2008

University of Isfahan

Isfahan, Iran

**Bachelor of Software Engineering**

## INTERESTS

• **Physics and Astronmty:** Consmology, Astronomy, Quantum Physics, Quantum Mechanics, Particle Physics, Special and General Relativity, Theory of Everything, Photonics.

• **Mathematics:** Linear and Abstract Algebra, Probability Theory, Information Theory

• **Cryptography:** Information Security, Network Security, Security Algorithms, Quantum Information Theory, Quantum Key Distribution, Quantum Cryptography

• **Philosophy:** Western Philosophy, Sociology, Economics, Politics and Humanities

• **Telecommunications:** Modulation, Multiplexing, Codes, Telecommunication circuits, Photonics and optical fibers, IEEE 802.3 Protocols, Information Theory, Coding Theory, Computer Networks, etc

• **Music and Musicology:** Classic, Extreme Metal, Alternative Metal, Progressive Metal, Alternative Rock, etc