

Mahdi Mohammadasab

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Profile

Senior Software Developer with 12+ years of experience in a variety of programming languages and technologies (mostly Java and Python). He may not know all the answers, but he is able to search and build the right solution.

Skills

- **Java, Python, Go, C#, Perl, C, C++**
- **Hive, Redis, Cassandra, MS SQL Server, PostgreSQL**
- **Java EE, Spring, Hibernate, JUnit, Maven**
- **Docker, Kubernetes, AWS, GCP**
- **RESTful API, Design Patterns, BDD, TDD**
- **OOP, Functional Programming, BPM, CI**
- Excellent analytical skills with solid understanding of software development lifecycle, **data structures** and **algorithms**.
- Extensive experience in **distributed** systems with high performance and multithreading to process massive amounts of data.

Open Source Projects (See github.com/mahdix for more)

- **Kubernetes**: An open source system for automating deployment, scaling, and management of containerized applications. Contributed to the “kubectl” command line tool and Minikube (A tool that makes it easy to run Kubernetes locally).
- **Apache Cassandra**: A distributed NoSQL database with no single point of failure, based on Google Bigtable and Amazon DynamoDB. Fixed some bugs in the “cqlsh” Python utility and statistics module, optimized database repair process and query tracing.
- **dot Programming Language**: A minimal but powerful programming language inspired from C, Go, Haskell and Scala. Currently finishing the language specification and implementing the compiler in C using LLVM.

Professional Experience

Senior Software Engineer (Mar '17 - present) **Skimlinks** (London, United Kingdom)

- Worked as a member of data-platform team with an Apache Hadoop cluster to implement big-data processing pipeline.
- Implemented Apache Oozie workflows to cleanse, normalize, aggregate and process 0.5 billion records per hour and store in Hive.
- Implemented and deployed a RESTful API (Python Flask + uWSGI + nginx) for Elasticsearch on a Kubernetes cluster hosted on Google Cloud to handle search and reporting queries in publishers' data (clicks, page impressions, link impressions and commissions).
- Developed a custom SerDe (Serializer/Deserializer) for Apache Hive to process custom JSON input files.

Software Developer (Oct '14 – Mar '17) **Binary.com** (Cyberjaya, Malaysia)

- Migrated and refactored the legacy Apache CouchDB based financial data system (for Interest Rate, Volatility Surface, Spot, ...) to a new storage model (Redis with distributed replication across all servers + replicated PostgreSQL). Achieved higher performance and lowered maintenance cost, without interrupting the 1.2M daily transactions (providing 24/7 service). Documented and moved the system outside the internal codebase under an open source license ([Quant:Framework](#)).
- Developed code for real-time financial data processing from different providers ([Bloomberg](#), [ICE](#), [SIX iD](#) and [SuperDerivatives](#)).

Software Development Lead (Jan '14 - Dec '14) **Iran Credit Bureau** (Tehran, Iran)

- Led a software development team (consisting of 5 members) to create a Credit Rating product based on [Experian](#) solutions used in all of [Saman Bank](#)'s 146 nationwide branches to calculate credit score and issue credit cards and loans to clients (C# + ASP.NET MVC).

Software Development Team Leader (Oct '09 - Jan '14) **Parstasmim** (Tehran, Iran)

- Developed multiple [OpenText](#) products: Java EE (Document Management System based on [Case360](#) engine, for [MTN-Irancell](#) Company, which handled ~500 concurrent users and a database of ~30M customers) and C# + ASP.NET ([Process360 BPM](#) + SharePoint, for Ports and Maritime Organization of Iran for issuance of certifications for seafarers in all 10 ports of the country).
- Lead a team of 4 developers for customization and integration of several open-source tools ([SugarCRM](#), [jBilling](#), [OTRS](#), [Zenoss](#), [Liferay Portal](#) and [OpenLDAP](#)) using the [Intalio|bpms](#) engine to manage the National Data Center's portal and customer facing services (According to the ITIL framework).
- Established two-way integrations with [CA Technologies](#) Identity Management software to control MTN-Irancell employee identities across multiple enterprise software (Microsoft Active Directory, [IFS](#), [Marval ITSM](#), [OpenText Case360](#) and [Oracle BI](#)).

Software Developer (Jul '07 - Sep '09) **Science Green** (Tehran, Iran)

Software Developer (Dec '05 - Dec '06) **Douran Data Processing** (Tehran, Iran)

Education

- **PhD Software Systems**, 2013, Ferdowsi University of Mashhad, Mashhad, Iran (not complete).
- **M.Sc. Information Security**, June 2009 and **B.Sc. Software**, August 2006, Amirkabir University of Technology, Tehran, Iran.