

Mahdi Mohammadasab

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github.com/mm-binary

Profile

Senior Software Developer with 12+ years of experience in a variety of programming languages and technologies (mostly Java and C#). A talented, fast learner with unique problem solving skills. Enjoys being challenged. He may not know all the answers, but he is able to search and build the right solution.

Skills

- Programming: Java, C#, Perl (Familiar with C, C++, JavaScript and Scala).
- Frameworks/Tools: Java EE, Spring framework, Java Persistence API (JPA), Hibernate, Automated Testing (JUnit), Maven, Git.
- Concepts: OOP, Design Patterns, System Integration, RESTful API, Web Services, BDD, MVC, Distributed Messaging (zeromq).
- Database: MS SQL Server, Apache Cassandra, PostgreSQL, Redis (Familiar with MongoDB, MySQL, Oracle DB and CouchDB).
- Excellent analytical skills with solid understanding of software development lifecycle, data structures and algorithms.
- Extensive experience in distributed systems with high performance and multithreading.

Open Source Projects (See github.com/mm-binary for more)

Apache Cassandra (Contributor)

- A distributed NoSQL database system with no single point of failure, based on Google Bigtable and Amazon Dynamo.

NewzRobot

- A Java-based news crawler and search engine (using MongoDB + Redis) + Android client to register, search and view news in real-time (using REST API and Google OAuth 2.0) with more than 1.3M news headlines from ~50 sources.

Electron Programming Language

- A minimalist and simple yet powerful programming language influenced by C, Haskell, Scala and Go.

Professional Experience

Software Developer (Oct '14 – present) [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. Documented and moved the system outside the internal codebase under an open source license ([Quant::Framework](#)).
- Refactored and back-tested option pricing engines serving 1M daily transactions (Vanna-Volga, Intraday Forex and extremely short-term option contracts) and migrated the Vanna-Volga pricing engine into a separate Perl module.
- 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)

- Lead 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 issue credit cards and loans to bank clients.

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).
- Team Leader and architect for the National Data Center (NDC) software project. Involved the Integration of open-source tools ([SugarCRM](#), [iBilling](#), [OTRS](#), [Zenoss](#), [Liferay Portal](#) and [OpenLDAP](#)) using the [Intalio|bpms](#) engine to manage the 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)

- Developed a file encryption tool (C# desktop application) according to the Cryptographic Message Syntax (CMS) standard.

Software Developer (Dec '05 - Dec '06) [Douran Data Processing](#) (Tehran, Iran)

- Contributed to the development of a C# + MS SQL Server based web portal and an online form designer + workflow manager.

Education

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