

MEHDI BIZHANI Senior Software Engineer

After 13 years of software development, I strongly believe in modular architecture and well-defined components. To realize this belief, I have been developing an open source family of projects with “**Demeter**” as its core. It is a full-stack integration of well-known frameworks (**Hibernate**, **Spring** and **Wicket**) and a container of “**business-level component**”, called “**DModule**”.

Another area that I am so interested is data analysis and mining, and I have approached it both scientifically and technically. In the banking domain, I have developed data warehouse and BI projects, and proposed a target marketing solution via data mining. My current project in this area is “**Metis**” DModule, which is an open source SQL-based application for reporting and data analysis.

ME IN A NUTSHELL

First Name	Mehdi	Sex	Male
Last Name	Bizhani	Marital	Single
Birth Date	21-August-1981	BS Degree	Computer Software Engineering
Country	Iran	MS Degree	Information Technology Engineering
City	Tehran	LinkedIn	linkedin.com/in/mbizhani
Email	mbizhani@gmail.com	GitHub	github.com/mbizhani
Cell	+98 912 3895295		→ 5 main projects
		Web Site	www.devocative.org
Experience	<ul style="list-style-type: none"> • 13 years in software development and engineering • Java platform mainly using Spring, Hibernate, Wicket, Groovy, and Maven • Frontend mainly JQuery, EasyUI, and SCSS • SQL & Database mainly Oracle, HSQLDB, and MySQL • Linux mainly Debian & Oracle • Data Warehousing & OLAP • Data Mining for M.S. thesis with 2 published papers 		
Interests	<ul style="list-style-type: none"> • OO Analysis & Design • Modular Software Architecture • Full-Stack Server-Side Software Development • Data Mining, Engineering & Analysis 		

OPEN SOURCE PROJECTS

Demeter

github.com/mbizhani/Demeter

This project is the basis for my other projects. It is a **full-stack** application and a **container** for any DModules. A **DModule**, which is a “business-level component” and is deployed besides the Demeter, has its own **three tiers** and just focuses on its business-core issues. The **common services** for all DModules are provided by Demeter.

Metis

github.com/mbizhani/Metis

It is a DModule to create simple **search** and **report** over any JDBC-related data stores. The queries are based on the data store dialect, but now it is used for **SQL** and **EQL**, which is **semi-entity-based SQL** where instead of table and column names, their equivalent entity and property names are used. It also provides **OData** REST for the searches out-of-the-box.

Ares

github.com/mbizhani/Ares

It is a DModule to help **operation** team and make it possible for other teams to access operation servers in a **web-based environment** with controlled and limited commands.

For operation team:

- A center for all the **information of servers, services, and system users**
- Web-based **terminal console for Shell and Database**
- **User-defined commands** to handle daily jobs with ease and safety

For other teams:

- If they want special operation services such as schema backup, copy or VM-related issues, the necessary commands can be defined with access grant to do their jobs whenever they want

Wickomp

github.com/mbizhani/Wickomp

This project is designated for a **collection of Wicket components**, widely used in Demeter and the DModules for web-tier. For most of components a **JQuery plugin** is developed. For **WebSocket** and push-data mechanism, the integration classes are also developed. The list and class-diagram of the components are in the project homepage.

Devolcano

github.com/mbizhani/Devolcano

“Effective development needs efficient tools” is the main idea of this project. It tries to handle ‘just-CRUD-code generation’, ‘generated-code merge’, ‘hibernate-schema generation’, and other tools via Maven plugins.

SKILLS

	Level 1	Level 2	Level 3	Level 4
Programming Language	Java 8 SQL HTML JavaScript CSS	Groovy & DSL UML	SASS Scala ActionScript Shell script MDX	C# C++ C Python
Data	OData Protocol Data Warehouse OLAP	Data Mining IBM SPSS Modeler	Neural Network Statistics	
Java & Java EE Platform	Apache Wicket Hibernate & JPA Spring Apache Maven XStream Servlet & JSP	Java Cryptography Jackson for JSON Apache Tomcat JUnit JSch Jasper Report Jetty (for development) Quartz Apache Olingo Apache Axis	EJB 3 GWT Apache Struts JBoss Liferay Selenium Apache MINA Adobe BlazeDS Pentaho Mondrian Apache Ant	iText docx4j
Database BI NoSQL	Oracle DB (Oracle Workshop I)	HSQLDB	MySQL H2 Oracle BI	PostgreSQL MS SQL Server Elastic Search
Web	Easy UI	JQuery & developed plugin Highcharts		Jekyll
OS & related		Linux (Debian, Oracle) Bundle app as RPM	VMware ESXi	Docker
Miscellaneous	OO Design & Analysis Subversion	Magic Draw (UML Tool) Git & GitHub Sonatype Nexus	Scrum Kanban Adobe Flex	ASP.NET Delphi

* **Level1**: highest knowledge, **Level4**: lowest knowledge

* **green** ones: using in current projects

* **red** ones: learning

WORK EXPERIENCE

Company	Start	End	Duration	Role
6 Fanap (FanapSoft dept.) http://en.fanap.ir	2015/05	Now	<u>2</u> Years & <u>11</u> Months	Senior Software Engineer
Domain: ERP and PaaS Title: Head of Data Management & Operation <ul style="list-style-type: none"> Developing 'Metis' for ERP as data management product Developing 'Ares' for operation Server & VM configuration Product deployment as RPM bundle Technologies: Java, Wicket, Spring, Maven, Hibernate, JQuery, Easy UI, Groovy, Tomcat, Oracle DB				
5 Dotin (Subsidiary of Fanap & Bank Pasargad) http://dotin.ir/en	2012/03	2015/05	<u>3</u> Years & <u>2</u> Months	Senior Software Engineer
Domain: Banking and Financial Title: BI & Data Warehouse Technical Leader <ul style="list-style-type: none"> Developing software for ETL, BI, Customer Club, and AML Developing ETL processes to fetch data from main systems and store them in DWH Technologies: Java, Wicket, Spring, Maven, Hibernate, Easy UI, Groovy, Tomcat, Oracle DB, Mondrian, JQuery				
4 Fanap (Subsidiary of Bank Pasargad) http://en.fanap.ir	2008/03	2012/02	<u>4</u> Years	Senior Java Developer
Domain: Banking and Financial Title: Senior Java Developer in E-Payment Switch <ul style="list-style-type: none"> Developing a web application as the UI for the E-Payment Switch Developing use cases and tasks in E-Payment Switch Developing TMS (Terminal Management System) Technologies: Java, Wicket, Hibernate, JQuery, Groovy, Tomcat, Apache MINA, Oracle DB				
3 Paniz	2004/12	2008/02	<u>3</u> Years & <u>3</u> Months	Shareholder, Senior Java & ASP.NET Developer
2 Javane Software	2004/04	2004/11	<u>8</u> Months	Java Developer
1 Chapar Shabdiz	2003/06	2004/03	<u>10</u> Months	Java Developer
Total > <u>13</u> Years				

EDUCATION

Degree	Major	Minor	Grad Year	GPA	University
MS	Information Technology Engineering	Ecommerce	2010	18.08 / 20	K.N. Toosi University of Technology Tehran, Iran http://www.kntu.ac.ir/index.aspx?lang=2&sub=0
<p>Thesis: Using a real usecase, which was target marketing of POS devices based on their transactions and their merchants information, I achieved following goals:</p> <ol style="list-style-type: none"> 1. I <u>proposed</u> a new behavioral analysis based on RFM, called RF*M*, to adapt the scoring to banking domain. 2. I assigned class labels to POSs based on clustering RF*M* result. <ol style="list-style-type: none"> a. I applied k-means, SOM, ULVQ, and ALVQ clustering algorithms, and evaluated the results using Dunns and Silhouette indices. b. I <u>proposed</u> a new clustering algorithms based on LVQ, called GMLVQ, which calculates the neurons' weight based on a new formula. Experimental results showed my proposed approach outperformed the above algorithms according to the aforementioned indices. 3. I generated target marketing rules applying PART and RIPPER rule-based classification algorithms over the demographic fields of a POS's merchant as independent variables and generated class label as dependent one. 4. I <u>proposed</u> a clustering evaluation index, called TTADE. 					
BS	Computer Engineering	Software	2004	15.56 / 20	University of Tehran Tehran, Iran http://ut.ac.ir/en

Published Papers

Bizhani, M., Tarokh, M.J., **"Behavioral rules of bank's point-of-sale for segment description and scoring prediction"**, International Journal of Industrial Engineering Computations (IJIEC), Growing Science, 2011

http://growingscience.com/ijiec/Vol2/IJIEC_2010_25.pdf

Bizhani, M., Tarokh, M.J., **"Behavioral Segmentation of Bank's Point-of-Sale using RF*M* Approach"**, IEEE International Conference on Intelligent Computer Communication and Processing (ICCP 2010), 2010

<http://ieeexplore.ieee.org/abstract/document/5606461>

[PDF] Behavioral rules of bank's point-of-sale for segments description and scoring prediction

M Bizhani, M Tarokh - International Journal of Industrial ..., 2011 - growingscience.com

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Behavioral segmentation of bank's Point-of-Sales using RF* M* approach

M Bizhani, MJ Tarokh - Intelligent Computer Communication ..., 2010 - ieeexplore.ieee.org

Abstract: POSs (Point-of-Sale) are one of the major electronic payment systems in banking industry with more cost. The bank needs to know its customers behavior to find interesting segments to attract more transactions which results in the growth of its income and assets.

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