MEHRAN NAJAFI	Software Engineer BSc (Software Engineering), MSc (Software Engineering), PhD Candidate (Computer Science) www.cas.mcmaster.ca/~najafm/

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An accomplished Software Engineer specializing in enterprise systems, Web development and mobile applications with extensive experience in design and develop electronic healthcare solutions especially mobile health care applications.

TECHNICAL EXPERTISE

Languages	C#, Java, Objective-C, C/C++, ASP.NET, XML
Frameworks	.NET, J2EE, iOS
Databases	MySQL, SQL Server, Oracle, MS Access, SQL, ODBC/JDBC
APIs	Silverlight, JSP, Servlet, Cocoa Touch, Swing, EJB, Web Services API, Google Maps API
Techniques	Service Oriented Architecture, OOP, Model-View-Controller (MVC), UML Modeling, Design Patterns, RDBMS Design, Component-based Development
Major Applications	Cloud Computing, Mobile Device Applications, Web Services, Data Mining, Business Intelligence, BPM, Knowledge Management, eHealth

* See http://www.cas.mcmaster.ca/~najafm/projects.html for some accomplished projects.

EMPLOYMENT

McMaster University, Canada
Sessional Faculty, January 2011- May 2011

- Hired to design and teach a graduate course (CAS 757 – Modern Software Technology for eHealth). The course topics include: Web 2.0 & 3.0, Cloud Computing, Web Services, Mobile Computing, Decision Support Systems, Healthcare Interoperability Standards (e.g., HL7, SNOMED CT), Healthcare Infrastructures (Infoway, and Oracle HTB), and Online PHR Systems (Microsoft HealthVault, and Google Health).
- Technical project supervision, application reviews, and helping with coding.
- Overall student evaluation: good.

Google – Workforce Logic, Canada
Search Engine (Google) Quality Rater, March 2008 – March 2009

- Evaluating the accuracy of search engine results.
- Query analysis and measuring clients' satisfaction.
- Detecting spam, viruses, and malicious web pages through content analysis.
- Using an online tool to examine advertising-related data of different kinds and provide feedback to search engine.

Namdaran Sanat Investment Company, Iran
Network Manager and Java Programmer, June 2005 – April 2006

- Setup hardware (servers and routers) and software (Windows Server) utilized by the company's local network.
- Support the continued operations of the network.
- Firewall and VPN Setup, monitoring and maintaining the network security.
- Design and develop a stock analysis software in Java which supports decision making based on fundamental analysis.

Pars Nemoodgar Brokerage CO, Iran
.Net Designer and Developer, April 2004 – October 2004

- Initial design and development of the https://www.comexparsnem.com/ web site using ASP.NET and SQL Server.
- Implementing an internal portfolio manager in C# including a search engine and advanced reporting features.

EDUCATION

McMaster University, Canada
Doctor of Philosophy (PhD) in Computer Science – Candidate
2007 – Present (Expected Graduation: October 2011), 3.94/4 GPA
IEEE Reviewer (Journal of Internet Computing)
Research Areas: Web Services, Software Agents, Mobile Devices, eHealth

Sharif University of Technology, Iran
Master of Science in Computer Science (Artificial Intelligence)
2005 – 2007, 3.74/4 GPA
Research Areas: Data Mining, Image Processing, Robotics

Isfahan University of Technology, Iran
Bachelor in Software Engineering
2000 – 2005, 3.38/4 GPA
Research Areas: Smart Cards, eHealth

AWARDS

- Ontario Graduate Scholarship (OGS) $15000 /yr from the government of Ontario, 2009-2010
- McMaster University Scholarship $7000 /yr, 2009-2010

ACCOMPLISHED PROJECTS

Virtual Remote Nursing (VRN) System
McMaster University, 2010 - Present

- Design and develop a web based application to enable physicians to define and assign different tasks to a virtual nurse agent. This agent is being developed as an IPhone App and can provide reports and recommendations for both patients and physicians based on the assigned tasks.
- Objective C, C#, ASP. Net, and Microsoft Silverlight

Integration of an EMR System (London-based Hospital) with a Web-based CDSS
McMaster University, 2008 – 2009

- Utilizing HL7 V3.0 and web services in an agent based transaction model to enable the EMR system to invoke a web-based decision support system (Vascular Tracker) with a different ontology.
- C#, ASP. Net, and XML SPY

Hand Gesture Recognition for a Robotic Arm
Sharif University of Technology, Iran, 2007 – 2008

- The robotic arm takes commands from hand gestures being captured in real-time by a webcam. The main focus was on improving the tracking accuracy under different illumination conditions.
- C, and MATLAB

Distributed EMR System Using Smart Cards
Isfahan University of Technology, Iran, 2004 – 2005

- Design and develop a comprehensive web based EMR system where patients' data are stored into smart cards and healthcare professionals (including physicians, pharmacist, and nurses) have access to this information through a web application. The web application provides a user friendly and customized view for each type of users.
- C#, Java, ASP, and Oracle DB

PUBLICATIONS

Refereed Journal Articles

- M.Najafi and K.Sartipi, **Extending SOA Architecture using Generic Service Representatives**, Journal of Service Oriented Computing and Applications, 2010 (Accepted).
- M. Najafi, K.Sartipi, and N.Archer, **Web Service Competition: A New Approach to Service Selection,** International Journal of Web Intelligence and Agent Systems, 2011 (Submitted).
- M. Najafi, K.Sartipi, and N.Archer, **Task Services: Client-side Web Services Using Generic Service Representatives**, IEEE Transaction on Service Computing, 2011 (Submitted).
- M. Najafi, K.Sartipi, and N.Archer, **Formal Verification and Validation of Composite Web Services Using Service Composition Certifier**, Journal of Computer Networks, Elsevier 2011 (Submitted).

Referred Book Chapter

- K. Sartipi and M. Najafi and R. Kazemzadeh. **Data and Mined-Knowledge Interoperability in eHealth Systems**. Invited Chapter of Book: Data Mining in Medical and Biological Research, 2008.

Referred Conference Proceedings

- M.Najafi, K.Sartipi, and N.Archer. **Data, Information, Knowledge Web Services Using Service Representatives**. In The 2011 World Congress in Computer Science, Computer Engineering, and Applied Computing, Jul 17-12, 2011, Las Vegas, Nevada, USA (Accepted).
- M.Najafi, S.Aghtar, K.Sartipi, and N.Archer. **Virtual Remote Nursing System**. In IEEE CCNC 2011, Jan 9-12, 2011, Las Vegas, Nevada, USA (Accepted).
- M. Najafi and K.Sartipi. **Client-side Service Composition Using Generic Service Representative**. In IBM CASCON 2010, Nov 1-4, pages 238 – 252, Toronto, Canada, 2010.
- M.Najafi and K.Sartipi. **A Framework for Context-Aware Services Using Service Customizer.** IEEE International Conference On Advanced Communication Technology (ICACT 2010), Volume 2, pages 1339-1344, Phoenix Park, Korea, February 7-10, 2010.
- M.Najafi and K.Sartipi. **Service Representative to Enhance SOA Features**. SITCON: The CAS / NSERC Strategic Workshop in Smart Internet Technologies, Markham, Ontario, Canada, Nov 2, 2009.
- M. Najafi and K. Sartipi. **A modular Event-based Architecture for Workflow Systems**. IASTED International Conference on Software Engineering and Applications (SEA 2008), pages 70-76, Orlando, Florida, USA, Nov 2008.
- M. Najafi and H. Beygi. **Using PCA to improve evolutionary cellular automata algorithms.** 10th annual conference on Genetic and evolutionary computation (GECCO 2008), pages 1129-1130, Atlanta, USA, July 2008.
- H. Sajedi, M.Najafi, and S. Kasai, **A Boosted Skin Detection Method based on Pixel and Block Information**, 5th International Symposium on Image and Signal Processing and Analysis (ISPA 2007), pages 146-151, Istanbul, Turkey, IEEE, 2007.
- M. Najafi and M. Jamzad, **A Solution of Combining Several Classifiers for Face Recognition**, International Conference on Signal Processing and Imaging Engineering 2007 (ICSPIE07), pages 234-239, San Francisco, USA, IAENG, 2007.
- M. Najafi and M. Jamzad, **An Ensemble Based Learning For Face Recognition With Similar Classifiers**, International Conference on Machine Learning and Data Analysis 2007 (ICMLDA07), pages 1212-1217, San Francisco, USA, IAENG, 2007.

PERSONAL INFORMATION

- Citizenship Status: Permanent Resident
- IEEE and ACM member since 2008
- Personal Interest: Stock Market, Business, Video Games, and Tennis