

HOSSEIN MOHAMMADHASSANZADEH

6050 University Avenue, PO BOX 15000, Halifax, NS B3H4R2 CANADA
 (902) 266-4065 | Hassanzadeh@dal.ca | <http://web.cs.dal.ca/~hossein/>

SUMMARY OF QUALIFICATIONS

- Proven industry, finance, and healthcare knowledge as an IT analyst, designer, and developer
- Proven skills in designing and improving IT solutions in industry, finance, and healthcare domains
- Talented in project management and problem solving
- Proven skills in software engineering, object oriented programming, database design, and distributed data management
- Proven skills in user requirements elicitation, technical documentation, and presentation
- Experience in conducting research and development on data mining and machine learning techniques
- Experience with logic and knowledge representation and reasoning on the Semantic Web
- Conducted joint workgroup meetings between stakeholders and development team
- Confident working independently or in a team environment with excellent communication skills
- Reliable under pressure and consistently meets deadlines
- Hard worker, responsible, quick learner, and eager to learn, teach, and experience

SKILLS AND TECHNICAL PROFICIENCIES

- Imperative Languages: **Java, C#, C++, Python**
- Web Languages: **JavaScript, Asp.Net, php, html**
- Mobile Programming: **Android Studio, Sencha Touch**
- Databases: **SQL Server, MySQL**
- Source Code Management: **Microsoft TFS, GitHub, BitBucket**
- Logic Programming: **Prolog**
- Semantic Technologies: **RDF, RDFS, OWL ontologies (Protégé), SWRL, SPARQL, the SW Reasoning (Jena)**
- Engineering/Mining Tools: **MATLAB, Weka, Rapidminer**
- Software Eng./Project Mng. Tools: **Rational Rose, Microsoft Project**
- Graphical Design Tools: **Photoshop, Flash MX, 3Ds Max**
- Microsoft Office, LaTeX

EDUCATIONAL HISTORY

- **Doctor of Philosophy (PhD), Computer Science** Sep. 2013 - present (expected Sep. 2017)
Dalhousie University, Halifax, Canada
 - Dissertation: *"Investigating a Plausible Reasoning Approach for Performing Semantics based Data Analytics"*
 - Relevant Courses: *Knowledge Engineering, Management of Distributed Data*
- **Master of Science (MSc), Information Technology Engineering** 2010 – 2013
Amirkabir University of Technology (Polytechnic), Tehran, Iran
 - Dissertation: *"Context-based Trust Inference in Social Networks Using Data Mining Techniques"*
 - Relevant Courses: *Machine Learning, BI, Intelligent DSS, e-Commerce Systems, e-Payment Systems, Financial Management*
- **Bachelor of Science (BSc), Information Technology Engineering** 2005 – 2010
University of Isfahan, Isfahan, Iran
 - Senior Project: *"Implementation of an e-Auction website"*

PROFESSIONAL EXPERIENCE

- **Researcher and Mobile Application Developer** Sep. 2013 - present
NICHE Research Group, Faculty of Computer Science, Dalhousie University
 - Acquired fundamental knowledge in medical informatics
 - Conducting inter-disciplinary research on artificial intelligence and knowledge engineering
 - Investigating the application of plausible reasoning to infer new knowledge by using semantics relevant reasoning methods
 - Designing and developing a semantic analytics framework for intelligent extraction and synthesis of knowledge
 - Establishing a built-in support for reasoning with uncertainty and incompleteness in the logic layer of the Semantic Web
 - Developed cross-platform mobile application using Sencha and JavaScript ([IMPACT-AF](#) project)
- **Data Scientist** Jun. 2016 - present
College of Pharmacy, Dalhousie University
 - Examining the media uptake of a CNODES' study on Isotretinoin safety
 - Using Natural Language Processing techniques

- **Data and IT Analyst** Feb. 2012 – Sep. 2013
COMPUCO Inter Swiss Affiliation Company, Tehran, Iran
 - Developed risk management system in banking industry including credit risk, liquidity risk, currency/stock market risk
 - Developed business intelligence solutions in banking industry, including ETL and BI Dashboard
 - Provided and improved IT solutions for credit scoring system and data mining
 - Conducted research and provided advice regarding the development/implementation of data policies, standards, and models
 - Gained expertise in programming (SQL Server, C#, and ADO.NET) and financial engineering
- **Database Designer and Developer** Jul. 2010 - Apr. 2011
Shahlai Industrial Group, Tehran, Iran
 - Analyzed, designed, and developed industrial automation and ERP system
 - Set up a data management system on distributed data including backup/restore, data replication between office and plants
 - Broadened my proficiency in software development, including SQL Server, C#, and ADO.NET, and software design

SERVICES, HONORS, AND LEADERSHIPS

- **(Sub)Reviewer** at IJSWIS, CSICC 2017, LAK 2016, LAK 2017
- **Post-graduate full scholarship** for PhD studies, Dalhousie University, 2013- present
- **CNODES (Canadian Network for Observational Drug Effect Studies) trainee**, Jun. 2016 - present
- **Grants Committee Member**, Dalhousie Computer Science Graduate Society (CSGS), Nov. 2016-present
- **Treasurer**, Dalhousie Computer Science Graduate Society (CSGS), Apr. 2016-Nov. 2016
- **Member at large**, Dalhousie Computer Science Graduate Society (CSGS), June 2014- April 2016
- **DCSI'15 Organizing Committee Member**, Dalhousie University, 2015
- **Partial thesis support scholarship** for master's studies, Research Inst. for Information and Communication Tech. (ITRC), Iran, 2010-11
- **Scientific Society of IT Engineering Member**, University of Isfahan, 2007-2009

PUBLICATIONS

- H. Mohammadhassanzadeh, SA. Stewart, R. Traynor, S. Alexander, and IS. Sketris, " Using Natural Language Processing to examine the media uptake of a study on isotretinoin safety", 33rd International Conference on Pharmacoepidemiology & Therapeutic Risk Management (ICPE'17), Montreal, Canada, August 26 - 30, 2017.
- H. Mohammadhassanzadeh, W. Van Woensel, S.R. Abidi, and S.S.R. Abidi, "Semantics-based plausible reasoning to extend the knowledge coverage of medical knowledge bases for improved clinical decision support" , BioData Mining, vol. 10, no. 1, p. 7, 2017 (DOI: 10.1186/s13040-017-0123-y).
- H. Mohammadhassanzadeh, W. Van Woensel, S.R. Abidi, and S.S.R. Abidi, "A Semantic Web-based Approach to Plausible Reasoning for Improving Clinical Knowledge Engineering", IEEE International Conference on Biomedical and Health Informatics, Las Vegas, February 24-27, 2016. IEEE Press
- W. Van Woensel, H. Mohammadhassanzadeh, S. Abidi, SSR. Abidi, "Multi-Strategy Semantic Web Reasoning for Medical Knowledge Bases", Proc. of Int. Workshop on Biomedical Data Mining, Modeling, and Semantic Integration (BDM21), 2015
- H. Mohammadhassanzadeh, H.R. Shahriari. "Prediction of User's Trustworthiness in Social Networks via Text Mining", The ISC International Journal of Information Security, Vol. 5, Issue 2, 2014
- M. Farahikia, H. Mohammadhassanzadeh, "Application of Fuzzy Logistic Regression in Forecasting Stock Market Index", 3rd Conference on Financial Mathematics, Semnan, 2013
- H. Mohammadhassanzadeh, M. Farahikia, A. Esfahanipour, "An Empirical Study of Predictability of Stock Index Movement in Tehran Stock Exchange with Machine Learning Techniques", 9th International Industrial Engineering Conference, Iran, 2013
- H. Mohammadhassanzadeh, H.R. Shahriari, "Using User Similarity to Infer Trust Values in Social Networks Regardless of Direct Ratings", 9th International ISC Conference on Information Security and Cryptology (ISCISC '12), Tabriz, 2012

TEACHING EXPERIENCE

- **Instructor** Dec. 2012 - Aug. 2013
Computer Engineering Department, Abrar University, Tehran, Iran
 - Information Security course
- **Teaching Assistant** Sep. 2016 - Dec. 2016
Rowe School of Business, Dalhousie University, Halifax, Canada
 - Core Business Applications: Introduction to Computers
- **Faculty of Computer Engineering and IT, Amirkabir University of Technology, Tehran, Iran** 2011 - 2012
 - Information Security and e-Commerce Systems Engineering