

Mahdi Milani Fard

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Research Interests	Planning and decision making under uncertainty, Reinforcement learning, Statistical machine learning	
Education	<i>Ph.D. in Computer Science</i> , Sep 2009 - Current (Supervisor: Joelle Pineau) McGill University, School of Computer Science , Montreal, Canada <i>M.Sc. in Computer Science</i> , Sep 2007 - Jun 2009 McGill University, School of Computer Science , Montreal, Canada <i>B.Sc. in Software Engineering</i> , Sep 2003 - Jun 2007 University of Tehran, ECE Department , Tehran, Iran	
Honors and Awards	<i>FOE Award</i> : Highest yearly GPA, University of Tehran, 2004, 2005, 2006 and 2007. <i>6th, 5th, 4th Place</i> , <i>ACM/ICPC Regional Contest</i> , Tehran Site, 2004, 2005, 2006	
Journal Publications	Non-Deterministic Policies in Markovian Decision Processes , M. Milani Fard, J. Pineau, <i>Journal of Artificial Intelligence Research</i> , Volume 40, 2011	
Selected Conference Publications	Bellman Error Based Feature Generation using Random Projections on Sparse Spaces , M. Milani Fard, Y. Grinberg, A. Farahmand, J. Pineau, D. Precup, <i>Twenty-Seventh Conference on Neural Information Processing Systems (NIPS'13)</i> Modelling Sparse Dynamical Systems with Compressed Predictive State Representations , W. L. Hamilton, M. Milani Fard, J. Pineau, <i>Thirtieth International Conference on Machine Learning, 2013 (ICML'13)</i> Compressed Least-Squares Regression on Sparse Spaces , M. Milani Fard, Y. Grinberg, J. Pineau, D. Precup, <i>Twenty-Sixth AAAI Conference on Artificial Intelligence (AAAI'12)</i> PAC-Bayesian Policy Evaluation for Reinforcement Learning , M. Milani Fard, J. Pineau, C. Szepesvári, <i>Twenty-Seventh Conference on Uncertainty in Artificial Intelligence (UAI'11)</i> PAC-Bayesian Model Selection for Reinforcement Learning , M. Milani Fard, J. Pineau, <i>Twenty-Forth Conference on Neural Information Processing Systems (NIPS'10)</i> MDPs with Non-Deterministic Policies , M. Milani Fard, J. Pineau, <i>Twenty-Second Conference on Neural Information Processing Systems (NIPS'08)</i> A Variance Analysis for POMDP Policy Evaluation , M. Milani Fard, J. Pineau, P. Sun, <i>Twenty-Third AAAI Conference on Artificial Intelligence (AAAI'08)</i> Behavioral Partitioning in a Hierarchical Mixture of Experts using K-Best-Experts Algorithm , M. Milani Fard, A. Bakhtyari, <i>IEEE Symposium on Foundations of Computational Intelligence (FOCI'07)</i>	

Teaching Experience

Teaching Assistant, McGill University

Machine Learning (Fall 2009, 2010, 2011)

Artificial Intelligence (Winter 2009, 2011, 2012)

Teaching Assistant, University of Tehran

Programming Languages (Fall 2006), Compilers (Winter 2006), Theory of Machines and Languages (Fall 2005), Data Structures (Winter 2005), Advanced Programming (Fall 2004)

Introductory Classes to Linux, University of Tehran, 2004 - 2006

Summer classes held by ACM Student Chapter at University of Tehran

Occasional workshops held by ACM Student Chapter

Technical and Research Experience

Research Assistant, Reasoning and Learning Lab, McGill University, 2007 - now

Research in machine learning (theory), decision making under uncertainty, and applications of reinforcement learning in the design and analysis of adaptive treatment strategies for chronic medical conditions. Supervised by Joelle Pineau.

Internship, Google Inc., Mountain View, CA, Feb-May 2013

Application of machine learning methods within the Google Plus product.

Collaborative Image Annotation Tool and Concept-map Generator, Rojina 2006

Design and development of a collaborative image annotation tool with concept-map generation and ontology integration capabilities. The work involved working with various W3C standards including SVG and RDF formats. A paper was published on this work in ISWC'2006.

Member of Robocop Rescue Simulation Team, University of Tehran, 2004

Short-time research work under supervision of Prof. Taghiyare. Working on Robocop rescue simulation environment. A multi agent system that simulates a city after a disastrous earthquake. The task is to design and implement autonomous agents to act efficiently in such conditions.

Linux Network Administrator, University of Tehran, 2004 - 2006

Senior Software Developer, Basamad Telecommunications Co., June 2006 - 2007

Skills

Languages Skills

Persian (Native)

English (Fluent)

Computer Skills

Fluent in C/C++, Java, Python, Matlab

Software design and analysis, Enterprise application development

Other Skills

Algorithm design and analysis, Graph Theory, Statistical modeling, Simulation