

## Saeed Amizadeh

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CONTACT INFORMATION	Intelligent Systems Program University of Pittsburgh 5406 Sennott Sq. 210 S. Bouquet St. Pittsburgh, PA 15260 USA	<i>Landline:</i> +1-412-624-9182 <i>E-mail:</i> saeed@cs.pitt.edu <i>WWW:</i> www.cs.pitt.edu/~saeed
RESEARCH INTERESTS	Spectral (Large-Scale) Data Analysis, Dimensionality Reduction, Kernel Methods, Probabilistic Graphical Models, Sparsity, Semi-supervised Learning, Clustering	
EDUCATION	<b>University of Pittsburgh</b> , Pittsburgh, PA USA  Ph.D. Candidate, Intelligent Systems Program, April 2013 <ul style="list-style-type: none"><li>• Comprehensive Exam Topics: <i>Machine Learning, Dimensionality Reduction, Decision Making under Uncertainty</i></li><li>• Adviser: Dr. Milos Hauskrecht</li><li>• Area of Study: Artificial Intelligence - Machine Learning</li></ul> M.S., Intelligent Systems Program, June 2010 <ul style="list-style-type: none"><li>• Thesis Topic: <i>Latent Variable Model for Learning in Pairwise Markov Networks</i></li><li>• Adviser: Dr. Marek Druzdzal</li><li>• Area of Study: Artificial Intelligence - Machine Learning</li></ul> <b>University of Tehran</b> , Tehran, Iran  M.S., School of Electrical and Computer Engineering, August 2007 <ul style="list-style-type: none"><li>• Thesis Topic: <i>A Bayesian Approach to Hierarchical Concept Learning</i></li><li>• Adviser: Dr. Majid Nili Ahmadabadi</li><li>• Area of Study: Artificial Intelligence and Robotics</li></ul> B.S., School of Electrical and Computer Engineering, June 2004 <ul style="list-style-type: none"><li>• <i>Summa cum laude</i> graduate</li><li>• Area of Study: Computer Science - Software Engineering</li></ul>	
JOURNAL PUBLICATION	H. Firouzi, M. Nili Ahmadabadi, B. N. Araabi, <b>S. Amizadeh</b> , M. S. Mirian, Interactive Learning in Continuous Multimodal Space: A Bayesian Approach to Soft Partitioning and Learning, in <i>IEEE Transactions on Autonomous Mental Development</i> (in press), 2011.  <b>S. Amizadeh</b> , F. Rastegar and C. Lucas, Incorporating Heuristics in Evolutionary Optimization, in <i>International Journal of Information Technology and Intelligent Computing</i> , Vol. 1, No. 2, pp: 259-270, 2006.	
CONFERENCE PUBLICATIONS	<b>S. Amizadeh</b> , H. Valizadegan and M. Hauskrecht, Factorized Diffusion Map Approximation, in <i>JMLR W&amp;CP 22: the 15th International Conference on Artificial Intelligence and Statistics (AISTATS-12)</i> , pp:37-46, La Palma, Canary Islands, April 2012.  H. Valizadegan, <b>S. Amizadeh</b> , M. Hauskrecht, Sampling Strategies to Evaluate the Performance of Unknown Predictors, to appear in <i>2012 SIAM International Conference on Data Mining (SDM-12)</i> , Anaheim, California, April 2012.	

- S. Amizadeh**, S. Wang, and M. Hauskrecht, An Efficient Framework for Constructing Generalized Locally-Induced Text Metrics, in *the 22nd International Joint Conference on Artificial Intelligence (IJCAI-11)*, pp:1159-1164, Barcelona, Spain 2011.
- S. Amizadeh** and M. Hauskrecht, Latent Variable Model for Learning in Pairwise Markov Networks, in *AAAI-10: the 24th Conference on Artificial Intelligence*, pp: 382-387, Atlanta, U.S. 2010.
- S. Amizadeh**, M. Nili Ahmadabadi, B. N. Araabi and R. Siegart, A Bayesian Approach to Conceptualization Using Reinforcement Learning, in *IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*, Switzerland, Sep. 2007.
- S. Amizadeh**, M. Nili Ahmadabadi, C. Lucas, Bayesian Continuous-State Reinforcement Learning, in *Proc. of International Computer Society of Iran Computer Conference (CSICC07)*, pp: 1515-1521, Tehran, Iran, Feb. 2007.
- S. Amizadeh**, M. Chen, D. Dash, M. Hauskrecht, W. Schneider, Low-dimensional Embedding of Large-scale Infinite-dimensional Function Spaces with Application to Human Brain Connectome. *NIPS workshop on Low-rank Methods for Large Scale Machine Learning*, in conjunction with the 24th annual conference on Neural Information Processing Systems (NIPS), 2010.
- S. Amizadeh** and D. Dash, Efficient Causal Discovery and Abstraction in Perception Streams. *NIPS workshop on Bounded-rational analyses of human cognition: Bayesian models, approximate inference, and the brain*, in conjunction with the 23rd annual conference on Neural Information Processing Systems (NIPS), 2009.
- H. Harkema, H. Piwowar, **S. Amizadeh**, J. Dowling, J. Ferraro, P. Haug, W. Chapman, A Baseline System for i2b2 Obesity Challenge, in *The 2nd i2b2 Workshop on Challenges in Natural Language Processing for Clinical Data*, Nov. 2008.

## WORKSHOPS

## PROFESSIONAL EXPERIENCE

### Microsoft Research, Redmond, WA USA

*Research Intern in Machine Learning and Applied Statistics (MLAS)* **June 2011 to September 2011**

- Developed and implemented a fast mode-seeking clustering framework for non-Euclidean spaces

### Intel Labs Pittsburgh, Pittsburgh, PA USA

*Summer Research Fellow* **June 2010 to September 2010**

- Designed a mathematical framework for analyzing Human Brain Connectome datasets

*Summer Research Fellow* **June 2009 to September 2009**

- Designed a human-like online Causal Discovery model

### BLU Lab, University of Pittsburgh, Pittsburgh, PA USA

*Research Assistant* **June 2008 to May 2009**

- Developed structure discovery methods dealing with temporality in medical texts.

### Decision Systems Lab, University of Pittsburgh, Pittsburgh, PA USA

*Research Collaborator* **February 2008 to May 2008**

- Designed and developed the Bayesian network structure learning module for GeNe & SMILE project

**iVisioTech Co.,** Tehran, Iran

*R&D team member, System Designer*

**September 2006 to July 2007**

- Developed background modeling, tracking and occlusion detection methods for a real-time visual surveillance system.

**Robotics and AI Lab,** University of Tehran, Tehran, Iran

*Research Assistant*

**September 2004 to August 2006**

- Developed mobile robot vision and navigation methods.

AWARDS  
AND HONORS

University of Pittsburgh

- 2011 Andrew Mellon Predoctoral Fellowship awarded by the Dietrich School of Arts and Sciences, 2011

Microsoft Research Redmond

- 2011 Microsoft Research Internship, Summer 2011

Carnegie Mellon University, Intel Labs Pittsburgh

- 2010 CMU/Intel Summer Research Fellowship, Summer 2010
- 2009 CMU/Intel Summer Research Fellowship, Summer 2009

University of Pittsburgh

- Arts and Sciences (A&S) Fellowship, School of Arts and Sciences, 2009
- Arts and Sciences (A&S) Fellowship, School of Arts and Sciences, 2007

University of Tehran

- Ranked 32nd among 15,000 participants in the Iranian National Entrance Exam for M.S. in Computer Engineering, 2004
- Graduated summa cum laude: ranked 3rd among graduates of Computer Engineering at the University of Tehran, 2004

International Robocup Competitions

- 3rd place in American Open Robocup Competitions: The Coach Simulation League, the Thunder Team, Carnegie Mellon University, USA, 2003
- 5th place in International Robocup Competitions: The Coach Simulation League, the Thunder Team, Padova University, Italy, 2003

TEACHING  
ASSISTANTSHIP

**ECE Department, University of Tehran,** Tehran, Iran

*Artificial Intelligence*

**Spring 2006 and Spring 2003**

*Operating Systems*

**Spring 2003**

*Advanced Programming*

**Spring 2003**

*Computer Fundamentals*

**Fall 2003**

*Compiler Design*

**Spring 2002**

MAJOR  
GRADUATE  
COURSES

Carnegie Mellon University

- Unsupervised Learning, Fall 2009 (Grade: A)
- Statistical Machine Learning, Spring 2009 (Audit)
- Probabilistic Graphical Models, Fall 2008 (Grade: A-)

University of Pittsburgh

- Advanced Machine Learning, Fall 2011
- Machine Learning, Spring 2008 (Grade: A)
- Decision Analysis and Decision Support Systems, Spring 2008 (Grade: A+)
- Theory of Learning Algorithms, Fall 2007 (Grade: A)
- Natural Language Processing, Fall 2007 (Grade: A)

University of Tehran

- Stochastic Systems Control, Fall 2005 (Grade: 20/20)
- Distributed Artificial Intelligence, Spring 2005 (Grade: 19.5/20)
- Machine Vision, Spring 2005 (Grade: 19.5/20)
- Pattern Recognition, Fall 2004 (Grade: 14.5/20)
- Fuzzy Logic, Fall 2004 (Grade: 16.5/20)
- Robotics, Fall 2004 (Grade: 16/20)

MATHEMATICAL  
EXPERTISE

Advanced Probability and Statistics, Linear Algebra, Optimization, Spectral Graph Theory, Functional Analysis, Operator Theory, Game Theory, Algorithms and Complexity, Combinatorics, Graph Theory

TECHNICAL  
EXPERTISE

Programming: C, C++, Java, C#, SQL, Python, Prolog  
Mathematics and Statistics: MATLAB, R, Sho.NET  
Platforms: Java2EE, .NET  
Libraries: OpenCV, OpenGL, Boost, Weka  
General Applications:  $\text{T}_{\text{E}}\text{X}$  ( $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$ ,  $\text{BIB}\text{T}_{\text{E}}\text{X}$ ), Eclipse, Microsoft Office  
Source Control: Subversion, CVS  
Operating Systems: Microsoft Windows family, Mac OS X, Linux  
Languages: Farsi (Native), English (Fluent), Arabic (Elementary)

INTERESTS

**Panther Tango Club**, University of Pittsburgh

*Club President and Instructor*

**September 2010 to Present**

- Teaching Argentine tango and organizing tango events