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# Narges Sharif Razavian

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## Research Interests

- Probabilistic Graphical Models, Kernel Methods, Time Varying Structure Learning
- Gene Expression Network Modeling, Spatio-Temporal Network Discovery, Genome Wide Association Studies, Protein Structure Modeling.

## Research Experience

Aug2009-present: *Probabilistic Graphical Models of Continuous Variables: Estimation and inference for Protein Structure and Dynamic models*, advised by Prof. Christopher Langmead (cjl@cs.cmu.edu)

Sep 2011-Nov2011: Internship at Microsoft Research in Los Angeles, working on Regression models for Genome Sequence and Expression Mappings, supervised by David Heckerman (heckerma@microsoft.com).

Sep2009-Jan2009: *Non-Parametric Bayesian Model for Segmentation*, advised by Prof. Noah. A. Smith (nasmith@cs.cmu.edu)

Aug2007-Aug2009: *Statistical Machine Translation, Crowd Sourcing and Social Media Analysis* advised by Stephan Vogel(Stephan.vogel@cs.cmu.edu), and Robert Kraut (robert.kraut@cmu.edu)

## Publications and Technical Reports

Narges Razavian, "[Continuous Graphical Models for Static and Dynamic Distributions: Application to Structural Biology](#)" PhD thesis proposal, December 2012

Narges Razavian, Christopher J. Langmead, "[Comparing Structure Learning Methods for RKHS Embeddings of Protein Structures](#)", accepted in [NIPS workshop on the Confluence between Kernel Methods and Graphical Models](#), December 2012.

Narges Razavian, Hetu Kamisetty, Christopher J. Langmead, "[Learning generative models of molecular dynamics](#)", Tenth Asia Pacific Bioinformatics Conference (APBC 2012), also in BMC Genomics 2012

Narges Razavian, Hetu Kamisetty, Christopher Langmead, "[Expectation Propagation for von-Mises Graphical Models](#)", NIPS Workshop, Machine Learning in Computational Biology, December 2012

Narges Razavian, Hetu Kamisetty, Christopher Langmead, "[The von Mises Graphical Model: Structure Learning](#)", NIPS Workshop on Machine Learning in Computational Biology, December 2011

Narges Razavian, Subhdeep Moitra, Hetu Kamisetty, Arvind Ramanathan, Christopher J. Langmead, "[Time-Varying Gaussian Graphical Models of Molecular Dynamics Data](#)" Proceedings of 3DSIG 2010 Structural Bioinformatics and Computational Biophysics, Boston, MA. July 9-10, 2010.

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Narges Razavian, Selen Uguroglu, Andreas Zollmann. “[Species Selection for Phylogeny-Based Motif Detection](#)”, Computational Genomics Technical Report, June 2009

Narges Razavian, Andreas Zollmann. “[An Overview of Nonparametric Bayesian Models and Applications to Natural Language Processing](#)”, Languages and Statistics II project report, January 2009

Narges Razavian, Stephan Vogel, “[Fixed Length Word Suffix as New Factors in Factored Statistical Machine Translation](#)”, ACL 2010, also presented in LTI Student Research Symposium, September 2010

Narges Razavian, Stephan Vogel, “[The Web as a Platform to Build Machine Translation Resources](#)”, International Workshop on Intercultural Collaboration(IWIC2008), Stanford, USA February 2009

Narges Razavian, Fattaneh Taghiyareh, “[Embedding Corporate Blogging System in CRM Solutions](#)” Information Technology: New Generations (ITNG), Las Vegas, USA, April 2008.

Mostafa Keikha, Narges Razavian, Farhad Oroumchian, Hassan Seyedrazi, “[Document Representation and Quality of Text: An Analysis](#)”, Survey of Text Mining: Clustering, Classification, and Retrieval, Second Edition, Chapter 12, pp219-232, Springer London, ISBN 978-1-84800-046-9, July 2007.

## Education

*Aug2009-present: PhD, Language Technologies Institute, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA, USA.*

*Aug2007-Aug2009: Master of Science, Language Technologies Institute, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA, USA.*

*Sep2005-Aug2007: Master of Science, Information Technology, ECE Department, University of Tehran, Tehran, Iran.*

*Sep2001-Sep2005: Bachelor of Science, Software Engineering, Computer Engineering Department, Sharif University of Technology, Tehran, Iran.*