List Of Publications

1. H. Rahmani, H. Blockeel and A. Bender: Predicting Disease-Related Proteins using Informative Human Disease Network. Submitted To IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB).

2. H. Rahmani, H. Blockeel and A. Bender: Predicting Genes Involved in Human Cancer Using Network Contextual Information. Journal of Integrative Bioinformatics, 9(1):210, 2012.

3. H. Rahmani, H. Blockeel and A. Bender: Collaboration-Based Function Prediction in Protein-Protein Interaction Networks. In: Advances in Intelligent Data Analysis X - 10th Internationl Symposium, Lecture notes in Computer Science 7014: 318-327, Springer (2011)

4. H. Rahmani, H. Blockeel and A. Bender: Interaction-based feature selection for predicting cancer-related proteins in protein-protein interaction networks. In: Proceedings Fifth International Workshop on Machine Learning in System Biology (2011)

5. H. Blockeel, B. Piccart, H. Rahmani and D. Fierens: Three complementary approaches to context aware movie recommendation. In: Proceedings of the Workshop on Context-Aware Movie Recommendation: 57-60, ACM (2010)

6. H. Blockeel, H. Rahmani and M. Witsenburg: On the importance of similarity measures for planning to learn. In: P. Brazdil, A. Bernstein and J. Kietz (Eds.), 19th European Conference on Artificial Intelligence, 3rd Planning to Learn workshop (PlanLearn-2010): 69-74 (2010)

7. H. Rahmani, H. Blockeel and A. Bender: Collaboration based function prediction in protein-protein interaction networks. In: Proceedings of the 7th International Symposium on Networks in Bioinformatics (2010)

8. H. Rahmani, H. Blockeel and A. Bender: Collaboration-based function prediction in protein-protein interaction networks. In: Machine Learning in Systems Biology: Proceedings of the Fourth International Workshop: 55-58 (2010)

9. H. Rahmani, H. Blockeel and A. Bender: Collaboration-based function prediction in protein-protein interaction networks. In: European Conference on Computational Biology (2010)

10. H. Rahmani, H. Blockeel and A. Bender: Predicting the functions of proteins in protein-protein interaction networks from global information. In: JMLR: Workshop and Conference Proceedings: International Workshop on Machine Learning in Systems Biology 8: 82-97 (2010)

11. H. Rahmani, B. Nobakht and H. Blockeel: Collaboration-based social tag prediction in the graph of annotated web pages DyNaK 2010: Dynamic Networks and Knowledge Discovery. In: DyNaK 2010: Dynamic Networks and Knowledge Discovery: 1-12 (2010)

12. S. Aliakbary, H. Abolhassani, H. Rahmani and B. Nobakht: Web Page Classification Using Social Tags. In: IEEE 2009 International Conference on Computational Science and Engineering: 588-593 (2009)

13. H. Rahmani, H. Blockeel and A. Bender: Predicting the functions of proteins in PPI networks from global information. In: Proceedings of the Third International Workshop on Machine Learning in Systems Biology: 85-94, Helsinki University Printing House (2009)

Curriculum Vitae

Hossein Rahmani was born in Tehran, Iran, on March 25, 1983. He studied software engineering at the University of Tehran, Faculty of Engineering. His bachelor thesis was *Model Driven Architecture (MDA)*. In 2005, he was accepted in Artificial Intelligence department of Sharif University and in his master thesis: *Semantic web service composition using AI planning methods*, he succeeded to use AI Planning techniques to solve the problem of web service composition. The results of his master thesis encouraged him to explore the multidisciplinary research activities. Since November 2008, he started his PhD at the Leiden Institute of Advanced Computer Science (LIACS), Leiden University, in the section Algorithms and Data Mining under the supervision of Dr. Hendrik Blockeel. His PhD project was funded by Dutch Science Foundation (NWO) through a VIDI grant. The title of his PhD thesis was *mining annotated graphs* and he chose Protein-Protein Interaction (PPI) networks to apply his proposed graph algorithms. This PhD thesis is the result of four years of research in the Netherlands.

Acknowledgments

Thank you all. This, at the highest level of abstraction, shows my thanks and gratitude to all kind people around me who support, inspire and help me to accomplish my PhD. I will try to refine it a bit here, but I am sure this refinement will miss some traces. My apologies in advance.

I would like to thank my colleagues at the Leiden Institute of Advanced Computer Science (LIACS). Tijn Witsenburg, I really enjoyed sharing an office with you in the last three years. Rudy van Vliet, it was a pleasure to have you in our new office. I would like also to thank my friends from LIACS Data Mining Group.

I am very grateful to Mohammad Mahdi Jaghoori who helped and supported me in my beginning days in Netherlands. I would like to thank Behrooz Nobakht, my best friend in ten years. I owe a debt of gratitude to Mohammad Mirnezhad, who made my life in Leiden very easy, so far away from my family, Mohammad was the person who felt always responsible to provide a home-like atmosphere for me. I spent most of my days at Netherlands with different people. As the smallest sign of appreciation, I will name them: Ramin Etemaadi, Nafiseh Nazemi, Soghra Akbari, Mohammad Tayyebi, Zeinab Neshati, Faezeh Nami, Omid Karami, Masoud Mosallanejad, Shadab Gharaati, Moeen Mosleh, Akbar Shafiee and Mahdi Lamee.

I ow my deepest gratitude to my family. Shayesteh, your love and kindness is the best thing a man could ever want. I thank my parents, Aziz and Masoumeh for bringing me into this world and supporting me even if they knew I may not succeed. I would like to show my gratitude to my brothers and sisters. Thanks for the good care of parents, sending all those nice books and delicious food from far far away. I will be very grateful to you for all my life.

Lastly, I offer my regards and blessings to all of those who supported me in any respect during the completion of the thesis.

Hossein Rahmani
April 2012