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Omid Askari
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Education

Ph.D. - Computer Science (GPA: 4.0/4.0), UC Santa Barbara, CA — Expected: September 2020
M.Sc. - Computer Engineering (GPA: 4.0/4.0), Sharif University of Technology, Tehran — February 2014
B.Sc. - Software Engineering (GPA: 3.86/4.0), University of Isfahan, Isfahan — July 2011

Awards

- Awarded 5 Years Fully-Funded Scholarship and Computer Science Fellowship in UC Santa Barbara, September 2015.
- Ranked 1_{st} in Bio-Informatics HPN-DREAM Consortium Breast Cancer Network Inference Challenge (the compendium was a joint publication in Nature Methods Journal 2015), February 2014.
- Awarded a Fully-Funded Research Scholarship of Max Planck Institute for Intelligent Systems, Tüebingen, Germany, September 2013.
- Ranked 1_{st} in B.Sc. within a class of 47, Department of Computer Engineering, July 2011.
- Ranked 4_{th} in M.Sc. within a class of 56, Department of Computer Engineering, February 2013.
- Awarded Fellowship of Exceptional Talents for M.Sc. Program in Sharif University of Technology, September 2011.

Selected Publications

1. M. Jalili, O. AskariSichani, Xinghuo Yu " **Optimal pinning controllability of complex networks: Dependence on network structure,**" *Journal of Physical Review E*, (PRE), Vol. 91, No. 1, Page 012803, *American Physical Society*, DOI:10.1103/PhysRevE.91.012803, http://link.aps.org/doi/10.1103/PhysRevE.91.012803, 2015. **(git)**
2. SM Hill, LM Heiser, T Cokelear, M Unger, D Carlin, Y Zhang, A Sokolov, E Paull, CK Wong, K Graim, A Bivol, H Wang, F Zhu, B Afsari, LV Danilova, AV Favorov, W Lee, D Taylor, HPN-DREAM Consortium (O. AskariSichani), GB Mills, JW Gray, M Kellen, T Norman, S Friend, EJ Fertig, Y Guan, M Song, J Stuart, H Koeppl, PT Spellman, G Stolovitzky, J Saez-Rodriguez, and S Mukherjee " **Empirical assessment of causal network inference through a community-based effort**",*Recently accepted and to appear in* ***Nature Methods***, 2015.
3. O. AskariSichani, M. Jalili, " **Influence Maximization of Informed Agents in Social Networks,**" *Journal of Applied Mathematics and Computation*, (AMC), Vol. 254, Pages 229-239, 3/1/2015, *Elsevier*, http://dx.doi.org/10.1016/j.amc.2014.12.139,2015. **(git)**
4. O. AskariSichani, M. Jalili, " **Large-scale Global Optimization through Consensus of Opinions Over Networks,**" *Journal of the Complex Adaptive Systems Modeling*, *Springer*, 1(1):11, 2013. **(git)**
5. A. Fatemi, K. Zamanifar, N. Nematbakhsh, O. AskariSichani, " **A Team-Based Organizational Model for Adaptive Multi Agent Systems,**" in *3rd International Conference on Agents and Artificial Intelligence*, *ICAART* 2011, *Rome*, *Italy*, Volume 2, No. 297, s. 10:30-11:00, 2011. **(git)**

Work Experience

- University of California at Santa Barbara, CA
  - *Research Assistant* — September 2015 – Present
    - Have been working under supervision of Prof. Ambuj K. Singh and Prof. Francesco Bullo
    - Collaborating with a group of researchers from different universities on a data-driven project under Multidisciplinary University Research Initiative (MURI) grant
    - Implementing codes with C++, Python and MATLAB to analyze real big datasets to mathematically and experimentally show the dynamics of people group formation and evolution
- Hekmat Iranian Bank, Tehran
  - *Full-time Business Intelligence Analyst & Senior Software Architecture* January 2015 - August 2015
    - Analyzed a huge set of financial dataset
    - Designed and managed a team of developers to build a software for computing liquidity risk, credit risk and clustering customers with density estimation
    - Implemented the software using JavaFX, WEKA, Hibernate, Persistence, Oracle Database (PL/SQL) and OLAP data cube technology for computing queries instantly & data-warehouse programming
- Max Planck Institute (MPI) for Intelligent Systems, Empirical Inference Department, Tüebingen
  - *Researcher* — September 2013 - January 2014
    - Working on two huge datasets, Memetracker and Twitter, to mathematically model information cascades using Hawkes Process

  - Developing Stanford Network Analysis Platform (SNAP) toolbox using C++ and learned how to execute parallel codes efficiently on Oracle Grid Engine Server
  - Developing MATLAB codes to optimize a convex function using MATLAB CVX toolbox & Mosek.
- International Systems Engineering and Automation Company (IRISA) Company, Isfahan
  - *Intern* June 2011 - September 2012
  - Designed and developed a part of Oracle database in an Enterprise Resource Planning software
  - Used Java Applet, Oracle Forms and PL/SQL Package Programming
  - In another project, developed a plug-in that automated the query generation for mathematical formula computation using PL/SQL development and Oracle Form graphical user
- Rena Technical Services Company, Karaj
  - *Part-time Database Consultant* July 2011 - October 2011

Projects

Adaptive Multi Agent System Toolbox **(git)**
- *Software Designer and Developer* 2009 – 2011
- Learned agent-oriented programming and developed a massive distributed system
- Simulated a robocup rescue system and implemented a toolbox for attribute-based team cooperation organizational modeling
- Used Java Agent Development Framework (JADE) for multi-thread programming, Swing, JFrame for graphical user interface and reporting service

Software for Traffic Police Law Enforcement Device
- *Software Designer and Developer* 2008 – 2009
- Implemented a driver and graphical user interface for the device with C#
- This project won a silver medal in IENA, International Exhibition " Ideas-Inventions-Novelties", November 5-8, 2009, NÜRNBERG, Germany
- Also won another silver medal in Geneva Inventions, April 21-25, 2010, Geneva, Switzerland

Multi Agent System for City Traffic and Routing Simulation **(git)**
- *Software Designer and Developer* 2010 – 2011
- Designed and developed a parallel multi agent system software in JADE for modeling a city traffic system comprises cars, GPS and intelligent lights with an online graphical user interface exhibiting the simulation process, configuration and reporting services

Real Estate Management Software **(git)**
- *Software Designer and Developer* 2009
- Developed in C# using Microsoft WPF, SQL Server 2008 Database and Entity Framework
- Implemented an advanced online query generator to flexibly and efficiently search in huge database of properties, lands and homes

Service-Oriented Recommender System Software with Linked-Data Technology **(git)**
- *Software Designer and Developer* 2010
- Developed in C# using Microsoft WCF for service-oriented programming, Microsoft WPF
- Implemented a linked-data database using dotNetRDF and SPARQL

Time Series Forecasting in Business Intelligence Software **(git)**
- *Developer* 2011
- Implemented a time series forecasting model with a hybrid model of SVM, ARMA, ARIMA and ANFIS

Skills

Academic Software Packages:
Network: **SNAP**, MATLAB BGL, Gephi, Pajek, NodeXL. *Optimization:***MATLAB CVX**, **Mosek**, Gurobi. *Multi Agent Development:***Java Agent Development Framework (JADE)**, Repast Simphony. *Representation:***LaTeX**, Microsoft Word, VIM, EMacs. *Parallel Task Handling Services:***Oracle (Sun) Grid Engine on Oracle Solaris.** *Machine Learning and Data-mining:***WEKA**, Rapid Miner, Clementine. *Linked Data & Semantic Web:*RDF, **SPARQL**, OWL Ontology, Jena, **dotNetRDF**, Protégé.

Programming Languages:
JAVA, C, **C++**,**C#**, **MATLAB**, Python, SQL, **PL/SQL**, TSQL, ASP.NET, PHP, JSP, Prolog, Ruby, Visual Basic, Pascal, R.

Operating Systems:

Windows, **Linux**, **Linux Server**, Windows Server.

Development Software Packages:
Microsoft Visual Studio, Microsoft .Net, **Windows Presentation Foundation (WPF)**, **Windows Communication Foundation (WCF)**, Microsoft Entity Framework, Java Hibernate, Java Persistence, Java JFrame, Swing, Applet, C++ Graphical Design with **MFC**, Qt, Oracle Development Kit, Oracle Form, Android Software Programming, **Eclipse**, **Netbeans**, IntelliJ IDEA, **PyCharm**.

Programming Paradigms:
Object-Oriented Programming, **Agent-Oriented Programming**, **Service-Oriented Programming**.

Subversion Softwares: **Git**, TortoiseSVN.

Database Management Systems (DBMS):
Oracle, **Microsoft SQL(MSSQL)**, PostgreSQL, MySQL, Microsoft Access.

Scientific Activities

*Reviewer for:*Journal of ACM Transactions on Knowledge Discovery from Data — 2014 - Present
*Reviewer for:*Journal of Complex Networks, Oxford University Press — 2013 - Present
*Elected President:*Scientific Society of University of Isfahan Computer Sciences Students — 2013
*Founder and Director of:*Java Agent Development Framework (JADE) Facebook Page — 2010 - Present
*Researcher in:*Isfahan Math House (IMH) — 2010 - 2011

References

- **Ambuj K. Singh**, *Professor and Chair in Computer Science Department, UCSB*, Main department phone: (805) 893 3236, office: 3119 Harold Frank Hall, E-mail: **ambuj@cs.ucsb.edu**
- **Manuel Gomez Rodriguez, PhD**, *Tenure-track Research Group Leader, Max Planck Institute for Software Systems (MPI-SWS)*, Phone: +49 (7071) 601 - 541, office: Paul-Ehrlich-Strasse, 67663 Kaiserslautern, DE, E-mail: **manuelgr@mpi-sws.org**
- **Mahdi Jalili, PhD**, *Assistant Professor, Department of Computer Engineering, Sharif University of Technology*, Phone: (+98) 21 - 66166 - 6636, E-mail: **mjalili@sharif.edu**

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