

Objective

To obtain an intern position with X utilizing my strong programming background, knowledge of datamining and software development experiences. Passionate to work in a team on challenging problems.

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

Work Experience

- University of California at Santa Barbara, CA
- *Research Assistant* September 2015 – Present
 - 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 & 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, Tübingen
- *Researcher* September 2013 - January 2014
 - Working on two huge datasets, Memetracker and Twitter, to mathematically model information cascades
 - Understood another one's C++ implemented codes and developed them to handle the proposed algorithm in C++ and MATLAB
 - 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-based 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](#)) 2009 – 2011
- Software Designer and Developer*
 - 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

- 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

- Developed in C# using Microsoft WCF for service-oriented programming, Microsoft WPF
- Implemented a linked-data database using dotNetRDF and SPARQL

- Implemented a time series forecasting model with a hybrid model of SVM, ARMA, ARIMA and ANFIS

Selected Publications

1. **Optimal pinning controllability of complex networks: Dependence on network structure**, 2015. ([link](#)) ([git](#))
2. **Empirical assessment of causal network inference through a community-based effort, to appear in *Nature Methods***, 2015.
3. **Influence Maximization of Informed Agents in Social Networks**, 2015. ([link](#)) ([git](#))
4. **Large-scale Global Optimization through Consensus of Opinions Over Networks**, 2013 ([link](#)) ([git](#))
5. **A Team-Based Organizational Model for Adaptive Multi Agent Systems**, 2011 ([link](#)) ([git](#))

Awards

- Awarded 5 Years Fully-Funded Scholarship & **Computer Science Fellowship** in UC Santa Barbara, September 2015.
- Ranked **1st** in Bio-Informatics HPN-DREAM Consortium Breast Cancer Network Inference Challenge, February 2014.
- Ranked **1st** in B.Sc. within a class of 47, Department of Computer Engineering, July 2011.
- Ranked **4th** 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.

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 Symphony. *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

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