

### Personal Information:

I was born on March 22<sup>nd</sup> 1982, in Mashhad, Iran.  
(Equivalent to Farvardin 2<sup>nd</sup> 1361 in Iranian Calendar)

### Contact Information:

#### Permanent address (hometown):

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<http://mehr.sharif.edu/~jaghouri> )

### Education:

- Admission with an offer of 50% assistantship from the University of Illinois at Urbana Champaign (Fall 2005)
- **September 2003 - 2005:** MS. student, Software discipline, CE department, Sharif University of Technology, Iran.(GPA: 17.43/20)
- **September 1999 – 2003:** BS. student, Software discipline, ECE department, University of Tehran, Iran. (GPA: 17.37/20)
- **September 1995 – 1999:** High school student, National organization for development of exceptional talents (Sampad), Mashhad center, Mashhad, Iran.

### Honors and Achievements:

- Graduated among top five in computer engineering (software discipline) (MS degree) (Summer 2005)
- Graduated among top ten in computer engineering (software discipline) (BS degree) (Summer 2003)
- Ranked 3rd in the nation-wide scientific olympiad on computer engineering among university students, and admission to MS degree without taking the entrance exam again the next year (Summer 2002)
- Ranked 3rd in the nation-wide Software Engineering MS entrance exam, when I was a third year undergraduate student (2002)
- Recipient of the FOE (Faculty of Engineering) prize, for the third highest annual GPA (Academic year 2001-02)
- Holding *Senior* certificate of proficiency in English, offered by Iran Language Institute (obtained in Summer 2000)
- Ranked 5th in the nation-wide programming contest among high-school students (1998)

## Research Interests:

- Software Engineering
- Formal Methods and Verification (with experience in Rebeca)
- Programming Languages (especially actor-based models)
- Distributed Systems

## Publications:

- M. Sirjani, **M.M. Jaghoori**, C. Baier and F. Arbab: Compositional Semantics of an Actor-Based Language Using Constraint Automata, *COORDINATION'06*, pp. 281-297, June 2006
- **M.M. Jaghoori**, A. Movaghar and M. Sirjani, Modere: The Model-checking Engine of Rebeca, in *Proc. the 21st Annual ACM Symposium on Applied Computing (SAC 2006)*, Dijon, France, pp. 1810-1815, April 23-27, 2006
- **M.M. Jaghoori**, S.H. Mirian and H. Sheikhveisi, SEPID: A Simple Enhanced Process for Interactive-systems Development, in *proc. 11th Annual Int. CSI Computer Conference*, Tehran, Iran, Vol 2, pp. 465-472, January 2006.
- **M.M. Jaghoori**, M. Sirjani, M.R. Mousavi and A. Movaghar, Symmetry Reduction in the Formal Verification of Rebeca Models, in *Proc. ICDCIT'05*, Bhubaneswar, India, Vol. 3816 of LNCS, Springer, pp. 494-507, December 2005.
- M. Sirjani, A. Shali, **M. M. Jaghoori**, H. Iravanchi and A. Movaghar, A Front-End Tool for Automated Abstraction and Modular Verification of Actor-Based Models, in *Proc. ACSD 2004*, Hamilton, Canada, pp. 145-148, IEEE Computer Society, June 2004.
- M. Sirjani, H. SeyedRazi, A. Movaghar, **M. M. Jaghoori**, S. Forghanizadeh and M. Mojdeh, Model Checking CSMA/CD Protocol Using an Actor-Based Language, in *WSEAS Transactions on Circuit and Systems*, Issue 4, Vol. 3, 1052- 1057, June 2004.
- M. Sirjani, A. Movaghar, H. Iravanchi, **M.M. Jaghoori** and A. Shali, Model Checking in Rebeca, in *Proc. International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA' 03)*, Las Vegas, USA, CSREA Press, June 2003.
- M. Sirjani, A. Movaghar, H. Iravanchi, **M.M. Jaghoori** and A. Shali, Model Checking Rebeca by SMV, in *Proc. Workshop on Automated Verification of Critical Systems (AVoCS'03)*, University of Southampton, April 2003.
- **M.M. Jaghoori**, Verification of Rebeca Models Using Partial Order and Symmetry Techniques, M.Sc. Thesis Dissertation (Persian language), under supervision of Prof. Movaghar, Sharif University of Technology, September 2005
- **M.M. Jaghoori**, Model checking Rebeca by translation into SMV, BS. Thesis Dissertation (Persian language), under supervision of Prof. Sirjani, University of Tehran, August 2003
- A. Movaghar, M. Sirjani, H. Iravanchi, **M.M. Jaghoori** and A. Shali, Translating Rebeca into SMV, Research proceedings, Department of Computer Engineering, Sharif University of Technology 2002-2003, pp 85-89, (Persian language).
- Two papers in preparation, as indicated in *research assistantships*.

## Experiences:

- **Teacher** – Sajjad University (Mashhad) (2006)
  - Operating Systems
  - Programming in C++
  - <http://www.sajjad.ac.ir>
- **Researcher** - School of computer science, IPM (2005)
  - <http://cs.ipm.ir>
- **Researcher** - AshnaSecure (2003-04)
  - <http://www.ashnasecure.net>

## Research Assistantship:

- **Summer 2002 – Summer 2003** (with Prof. Sirjani)
  - **Subject:** Model checking Rebeca
  - **Details:** Developed a tool for translating Rebeca to SMV and Promela
  - **Level:** Undergraduate
  - Resulted in 1 BS thesis, 3 papers and 1 technical report.
- **Summer 2003 – Spring 2004** (with Prof. Sirjani)
  - **Subject:** Managing the case study group in Rebeca
  - **Details:** Model checked some distributed algorithms and protocols, e.g. CSMA/CD protocol, Leader election, Two-phase commit, etc.
  - **Level:** Undergraduate / Graduate
  - Resulted in 1 paper.
- **Winter 2003/2004 – Spring 2004** (with Prof. Mirian)
  - **Subject:** Developing a Simple Enhanced Process for Interactive systems Development
  - **Details:** Improving user interface modeling during software design
  - **Level:** Graduate
  - Resulted in 1 paper
- **Summer 2004 – Spring 2006** (with Prof. Sirjani)
  - **Subject:** Translating Rebeca to Reo and Constraint Automata.
  - **Details:** Providing compositional semantics for an actor-based language
  - **Level:** Graduate
  - Resulted in 1 paper
- **Fall 2004 – Fall 2005** (With Prof. Jalili)
  - **Subject:** A New Approach for Automatic Refinement of Security Requirements in the Software Development Process
  - **Details:** Developing a tool based on role-based access control (RBAC)
  - **Level:** Graduate
  - One submitted paper.
- **Summer 2004 – present** (with Prof. Sirjani & Prof. Movaghar)
  - **Subject:** Applying Symmetry and Partial Order reduction to the verification of Rebeca
  - **Details:** Reducing state space representation for Rebeca models; An efficient way of solving the orbit problem in finding symmetry in models.
  - **Level:** Graduate
  - Resulted in 2 papers, an M.Sc. thesis dissertation, plus 1 paper in preparation

## **Teaching and Lab Assistantship:**

- Software engineering lab, Fall 2004, Sharif University of Technology
- Advanced programming (Java), Fall 2004, Sharif University of Technology
- Operating systems, Spring 2003, University of Tehran
- Assembly and machine language, Fall 2001 & Fall 2000, University of Tehran
- Data Structures, Fall 2001 & Spring 2001, University of Tehran

## **Skills:**

- Proficient in
  - Java (J2SE, J2EE)
  - C++/C (Visual C++, Linux system programming)
  - Pascal
  - Assembly and Machine Language
- Familiar with C#, Delphi, Basic, Prolog, HTML, XML, Verilog.
- Fluent in Persian and English