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# RESUMÉ

## Azadeh Farzan

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### Research Interests

Software Engineering, Programming Languages, Software Verification, Formal Methods, Security (with an emphasis on concurrency)

### Education

- 9/00 – 12/06      University of Illinois at Urbana-Champaign (Urbana, IL),  
*Ph.D. in Computer Science*, Advisor: Professor José Meseguer
- . 9/96 – 2/00      Sharif University of Technology (Tehran, Iran),  
*B.S. in Computer Engineering*. Graduated with honors.

### Publications

- [0] **Ph.D. Thesis:** *Formal Analysis of Concurrent Programs and Systems: A Semantics-Based Approach*, December 2006.
- [1] AZADEH FARZAN, P. MADHUSUDAN, “Causal Dataflow Analysis for Concurrent Programs”. *To appear in proceedings of Tools and Algorithms for the Construction and Analysis of Systems (TACAS) 2007*.
- [2] AZADEH FARZAN, P. MADHUSUDAN, “Causal Dataflow Analysis for Concurrent Programs”. *Technical Report UIUCDCS-R-2007-2806, Computer Science Department, University of Illinois at Urbana-Champaign, 2007 (full version)*.
- [3] AZADEH FARZAN, JOSÉ MESEGUER, “State Space Reduction of Rewrite Theories Using Invisible Transitions”. *In proceedings of Algebraic Methodology and Software Technology (AMAST) 2006, Lecture Notes in Computer Science, volume 4019: 142–157*.
- [4] AZADEH FARZAN, P. MADHUSUDAN, “Causal Atomicity”. *In proceedings of Computer Aided Verification (CAV) 2006, Lecture Notes in Computer Science, volume 4144: 315–328*.
- [5] AZADEH FARZAN, JOSÉ MESEGUER, “Partial Order Reduction for Rewriting Semantics of Programming Languages”. *In proceedings of WRLA, 2006: 56 – 75*.

- [6] AZADEH FARZAN, FENG CHEN, JOSÉ MESEGUER, GRIGORE ROSU, “JavaFAN: A Rewriting Logic Approach to Formal Analysis of Multithreaded Java Programs”. *Technical Report UIUCDCS-R-2005-1523, Computer Science Department, University of Illinois at Urbana-Champaign, 2005.*
- [7] AZADEH FARZAN, FENG CHEN, JOSÉ MESEGUER, GRIGORE ROSU. “Formal Analysis of Java Programs in JavaFAN”. *In proceedings of Computer Aided Verification (CAV) 2004, Lecture Notes in Computer Science, volume 3114: 501–505.*
- [8] AZADEH FARZAN, JOSÉ MESEGUER, GRIGORE ROSU, “Formal JVM Code Analysis in JavaFAN”. *In proceedings of Algebraic Methodology and Software Technology (AMAST) 2004, Lecture Notes in Computer Science, volume 3116: 132–147.*

## Research and Teaching Experience

- 1/07 – present    School of Computer Science, Carnegie Mellon University (Pittsburgh, PA): Post Doctoral Fellow for Professor Edmund M. Clarke
- 6/05 – 12/06    Department of Computer Science, University of Illinois at Urbana-Champaign (Urbana, IL): Research Assistant for Professor José Meseguer.
- 1/05 – 5/05    Department of Computer Science, University of Illinois at Urbana-Champaign (Urbana, IL): Teaching Assistant for Automated Deduction course.
- 1/03 – 12/04    Department of Computer Science, University of Illinois at Urbana-Champaign (Urbana, IL): Research Assistant for Professor José Meseguer.
- 9/00 – 12/02    Department of Computer Science, University of Illinois at Urbana-Champaign (Urbana, IL): Research Assistant for Professor David Padua.
- 1/99 – 2/00    Department of Computer Engineering, Sharif University of Technology (Tehran, Iran): Teaching Assistant.
- 9/96 – 6/97    Farzānegān High School (Supervised by the National Institute for Development of Exceptional Talents), (Tehran, Iran): Physics Teacher.

## Honors and Awards

- Post doctoral scholarship in “Mathematical Logic and Applications” program from University of Freiburg, Germany.
- Ranked 1st in Computer Engineering Department of Sharif University of Technology among 75 students (1996-2000).
- Best Young Teacher Award in Farzānegān High School (1997).
- Ranked 50th in the national entrance exam of universities in Iran among 100,000 students (1996).
- Recipient of the *silver medal* of the National Mathematics Olympiad of Iran, 1995.
- Recipient of the *silver medal* of the National Physics Olympiad of Iran, 1995.
- Recipient of two *bronze medals* of the National Informatics Olympiad of Iran, 1994-1995.

## Skills

- **Programming**

- Java, *C*, and *C++*, *C++* Builder, Delphi, Pascal.
- 80x86 Assembly Language, MIPSpro assembly language, Prolog, ML.
- Experiences in working with Oracle 8 Designer, and SQL Server.
- Unix Programming and Unix Network Programming.
- L<sup>A</sup>T<sub>E</sub>X.

- **Languages**

- Fluent in Farsi (native) and English.
- Reading skills in French.

## References

Professor José Meseguer  
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