

SAHAND HARIRI AKBARI

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EDUCATION

- University of Illinois at Urbana-Champaign** *current*
Ph.D candidate in Mechanical Science and Engineering
- Temple University** *December 2009*
M.S. in Mechanical Engineering
- Temple University** *May 2007*
B.S. in Mechanical Engineering
With second major in Mathematics

WORK EXPERIENCE

- University of Illinois** *September 2012 - present*
Graduate Research Assistant *Champaign, IL*
- Design and simulation of various Agent Base Models for studying emergent behaviors in complex systems.
- Wolfram Alpha LLC** *January 2010 - July 2012*
Research Programmer *Champaign, IL*
- Data analysis, design and implementation of various data models.
 - Implementation of user interface.
- Projects: Undersea feature data, Wood data, Alloy data, Structural beam deformations, Machining handbook data, Anatomy data.
- Temple University** *January 2009 - December 2009*
Graduate Research Assistant *Philadelphia, PA*
- Performed various numerical simulations and compared to existing experimental and analytical results.
 - Developed new analytical results important in modeling the system.
 - Presented this research at the 2009 SIAM Conference.
- Research topic: “Long-Time Transport and Mixing in Cellular Flow Due to Resonant Processes and Chaotic Advection”
- Temple University** *September 2007 - December 2008*
Graduate Teaching Assistant *Philadelphia, PA*
- Assisted during lectures in class rooms, performed and supervised experiments in student laboratories, graded student homework and exams, worked with individual students on homework problems.
 - Mechanical Vibrations, Heat and Mass Transfer, Dynamical Systems, Measurements Lab, Dynamics lab, Fluids Lab.
- Temple University** *Spring of 2006 and spring of 2007*
Undergraduate Teaching Assistant *Philadelphia, PA*
- Assisted during lectures in class rooms
 - AutoCAD

Temple University
Computer Lab consultant

Spring of 2006 and spring of 2007
Philadelphia, PA

- Operating system and software installation
- Systems maintenance
- Smart class room scheduling and maintenance

COMPUTER SKILLS

Languages	C++, Python, Matlab, Mathematica, familiarity with JavaScript, SQL, HTML, CSS
Design Applications	AutoCAD, ANSYS
Office Applications	Word, Excel, Power Point, Access, Publisher
Operating Systems	Windows, Mac OSX, Linux (Redhat, Fedora, Mandriva, OpenSUSE, Ubuntu)

COURSEWORK

- Engineering Mathematics, Dynamical Systems and Chaos, Computational Fluid Dynamics, Finite Element Analysis, Composite Materials, Continuum Mechanics, Random Processes
- Real Analysis. Complex Analysis, Differential Geometry, Modern Algebra

AWARDS AND AFFILIATIONS

- Recipient of College of Engineering Undergraduate Research fellowship; Summer of 2006, “A New Kind of Science; A Search for Reversible Rules in the Space of 3-colored, Nearest Neighbor Cellular Automata”
- Alumni of NKS Summer School 2008
- Member of Golden Key International Honor Society, Fall 2004-Present
- Member of National Society of Collegiate Scholars, Fall 2003-Present
- Member of American Society of Mechanical Engineers