

## Research Interest

**Network Security, Incident Handling, SDN, Visual Authentication.**

**Human Computer Interaction, Usability, Usable Security, Human Computation.**

**Large-Scale Systems, Cloud Computing, Big data.**

## Education

2014-Present **PhD in Computer Science, University of Illinois at Urbana-Champaign.**

2008–2011 **MSc in Computer Architecture, University of Isfahan, Isfahan, Iran.**

2004–2008 **BSc in Software Engineering, Isfahan University of Technology, Isfahan, Iran.**

## Experience

2013/10 **Center for Configuration Analytics and Automation, Graduate Researcher, UNCC.**

Present Designer of an “**Interactive Analytics of Network Security Datasets**”. My ultimate goal is designing a usable visual representation for a huge dataset with a poor structure, by extracting new meta-data and examining various visualization techniques. Currently, Python, HTML5 and HADOOP is being used in the project.

2013/04 **CyberDNA Research Group, Graduate Researcher, UNCC.**

2013/09 Designer, Developer, and Evaluator of a new “**Shape-Based Leak Resident Authentication System**”. My task was designing and developing prototypes of a new visual authentication system, also implementing various security and usability tests. The project was prototyped with C++, Python, Javascript, and HTML5.

2013/01 **Information and Infrastructure Security, Graduate Researcher, UNCC.**

2013/03 Designer and developer of an “**Network Disaster Recovery Auto planning**”. My task was modeling a SDN network and some sample intrusions as a feedback system with Linear Temporal Logic. The project was based on tulip framework and was prototyped with Python.

2011-2012 **AIP Consortium, Software Engineer.**

Designer and developer of an “**Intelligent Incident Handling**” subsystem for a Security Operation Center. My task was designing and developing an interactive component that convert an incident handling report to a highly customizable workflow using a dynamic knowledge base. The project designed based on SOA, and developed with Python (Flask), HTML5 and HADOOP.

2010-2011 **Information Technology Center, Graduate Researcher, IUT.**

Designer and Developer of an expert system for a “**Cyber Security Operations Center**”. My task was defining the incident response problem, and designing and prototyping an incident handling expert system. The project designed with UML, and prototyped with C++.

2008-2010 **APA-IUTCert, Computer Incident Handler.**

## Publication

### Peer-reviewed Conference

2012/11 **S.H. Hashemi, M. Babaeizadeh, M. Nowruzi, “A comprehensive semi-automated incident handling workflow,”** 6th International Symposium on Telecommunications

2012/11 M. Nowruzi, H. Hadian Jazi, M. Dehghan, M. Shahmoradi, **S.H. Hashemi, M. Babaeizadeh, “A comprehensive classification of incident handling information,”** 6th International Symposium on Telecommunications

2012/09 S. H. Moosavi K., M. Berenjkoub, **S.H. Hashemi, “Enhanced Single Sign-On Method for Web Applications Using a Secure Cookie Protocol,”** 9th International ISC Conference on Information Security and Cryptology, (In Persian)

- 2011 M. Hamidi, **S.H. Hashemi**, "Structure Independent, Cluster-Based Event Log Analyzer," 4th IEEE International Conference on Computer Science and Information Technology
- 2009 S. Hajian, F. Hendesi, M. Berenjkoub, **S.H. Hashemi**, P. Golshani, "New Classification of Computer Vulnerabilities," Iranian Conference on Cyber Space Incidents and Vulnerabilities

### Thesis

- 2011 **Visual Authentication Using Graphic to Text Static Mapping**, University of Isfahan, MSc
- 2008 **Viona: Human-Computational Approach to Text Summarization**, Isfahan University of Technology, BSc

### Peer-reviewed Workshop

- 2009 **S.H. Hashemi**, H. Soleymani, M. A. Taebi, S. M. H. MirshahJa'fari, A. M. Ghasemi, "Technical Analysis of ClickJack Attacks and Case Studies," Iranian Conference on Cyber Space Incidents and Vulnerabilities

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## Teaching Experience

- 2013:Q3 **IT Infrastructure II, Design and Practices**, UNC Charlotte.
- 2013:Q2 **IT Infrastructure I, Design and Practices**, UNC Charlotte.
- 2010-2012 **Network Security**, Isfahan University of Technology.
- 2007-2009 **System Security**, University of Isfahan.

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## Skill

- Programming Python, C++, C#, Java, VHDL, Prolog, Assembly, Android, iOS, CUDA
- Big Data Hadoop, Hive, Pig, Mahout, MySQL, MongoDB
- Networking HP/UX, Cisco iOS, Windows Administration, UNIX Administration

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## Service

- 2010 **Speaker**, Security of Industrial Control Systems, IRCERT/CC, Tehran, Iran.
- 2010 **Speaker**, Web Security Workshop.
- 2009-2010 **Conference reviewer**, ISCISC.
- 2009-2010 **Speaker**, Enterprise Security Workshops, Isfahan, Iran.
- 2009 **Speaker**, Security of Network Services Workshop, Isfahan, Iran.
- 2007-2009 **Chairman**, Scholar Software Festival, National Organization for Development of Exceptional Talents, Iran.