

CURRICULUM VITAE

Hassan Takabi

LERSAIS, School of Information Sciences, University of Pittsburgh

Contact Information

Address: 410 IS Building, University of Pittsburgh
135 North Bellefield Avenue, Pittsburgh, PA 15213.
Tel: (412) 648-1536
Home page: <http://www.sis.pitt.edu/~hatakabi>
Email: hatakabi at sis.pitt.edu

Research Interests

- Information Security (Access Control Models, Trust Management, Privacy, Web Security)
- Security, Privacy, and Trust Issues in Cloud Computing Environments and Online Social Networks
- Usable Privacy and Security
- Computer and Communication Networks Security (Firewall Security, Intrusion Detection & Prevention Systems, Vulnerability Analysis)
- Semantics-Aware Computing
- Distributed, Mobile, and Pervasive/Ubiquitous Computing
- Artificial Intelligence (Fuzzy Logic, Neural Networks, Multi Agent Systems)

Education

School of Information Sciences, University of Pittsburgh, Pittsburgh, PA, USA
Ph.D. Student, Information Science, August 2008 - Present
Advisor: Dr. James B. D. Joshi

Institute for Computing Research (ICR), Faculty of BCIM, London South Bank University, London, UK

Research Scholar, 2007 - 2008

Advisor: Prof. Ali Abdallah

Department of Computer Engineering, Sharif University of Technology

M.Sc., Information Technology (Networking), 2007

Thesis Title: "Fuzzy Role-Based Access Control System"

Advisor: Dr. Rasool Jalili

Department of Computer Engineering, Amirkabir University of Technology

B.Sc., Computer Engineering (Software), 2004

Thesis Title: "Developing a filtering and monitoring software for Personal Computers with remote administration"

Advisor: Dr. S. M. HosseiniNezhad

Honors and Awards

- Finalist for Best Paper Award, Kasperskys American Cup 2012: IT Security for the Next Generation, November 2011.
- Best Paper Award, 2011 Annual ACM Conference on Data and Application Security and Privacy (CODASPY 2011), February 2011.
- 2010 Korfhage Best Paper Award, University of Pittsburgh, April 2010.
- Overseas Research Students Awards Scheme (ORSAS) award, Secretary of State for Education and Science, UK, 2008.
- Scholarship, the 2011 International Association of Privacy Professionals (IAPP) Privacy Academy, Dallas, TX, USA, September 14-16, 2011.
- Travel Grant: ACSAC 2011, IEEE SafeConfig 2011, ACM CCSW 2011, USENIX Security'11, IEEE S&P'11, ACM CCS 2010, ACM CCS 2009, ACM SWS 2009.

- Scholarship for FOSAD 2008, SWING 2008, SSoRC 2008, SWING 2007 .

Publications

Book Chapter

- **Hassan Takabi**, James B. D. Joshi, and Gail-Joon Ahn. *Resolving Security and Privacy Challenges in Cloud Computing*. in Security and Privacy in Organizational Cloud Computing: Balancing Risks and Benefits, Editors: X. Yang and L. Liu, IGI Global, 2012 (In progress).
- **Hassan Takabi**, James B. D. Joshi, and Hassan A. Karimi. *Mobile Cloud Computing and Its Security and Privacy Challenges*. in Security, Privacy, and Trust in Ubiquitous Computing and Applications: New Trends, Practices, and Concepts, Editors: Sh. I. Ahamed and Md. M. Haque, Chapman and Hall/CRC Press, 2012 (In progress).
- **Hassan Takabi** and James B. D. Joshi. *Policy Management in Cloud Computing Environment: Challenges and Approaches*. in Security Engineering for Cloud Computing: Approaches and Tools, Editors: D. G. Rosado, D. Mellado, E. Fernandez-Medina, and M. Piattini, IGI Global, 2012 (In progress).

Journal Paper

- **Hassan Takabi**, and James B. D. Joshi. *Semantic Based Policy Management for Cloud Computing Environment*. International Journal of Cloud Computing, 2012 (To Appear).
- Lei Jin, **Hassan Takabi**, and James B.D Joshi. *Analyzing Security and Privacy Issues of Using Email Address as Identity*. International Journal of Information Privacy, Security, and Integrity, Vol. 1, No. 1, 2011.
- **Hassan Takabi**, James B. D. Joshi, and Gail-Joon Ahn. *Security and Privacy Challenges in Cloud Computing Environments*. IEEE Security and Privacy, Vol. 8, No. 6, November/December 2010.
- Ali E. Abdallah and **Hassan Takabi**. *Formalizing Delegation and Integrating it into Role-Based Access Control Models*. Journal of Information Assurance and Security, Vol. 5, No. 1, 2010.

Conference Paper

- **Hassan Takabi** and James B. D. Joshi. *Policy Management as a Service: An Approach to Manage Policy Heterogeneity in Cloud Computing Environment*. In Proc. 45th Hawaii International Conference on System Sciences (HICSS), Hawaii, USA, January 4-7, 2012.
- Saman Taghavi Zargar, **Hassan Takabi**, and James B. D. Joshi. *DCDIDP: A Distributed, Collaborative, and Data-driven Intrusion Detection and Prevention Framework for Cloud Computing Environments*. In Proc. 7th Int'l Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom 2011), October 15-18, 2011, Orlando, FL.
- Lei Jin, **Hassan Takabi**, and James B.D Joshi. *Towards Active Detection of Identity Clone Attacks on Online Social Networks*. In Proc. ACM Conference on Data and Application Security and Privacy (CODASPY 2011), San Antonio, TX, USA, 21-23 February 2011.
- Michelle L. Mazurek, Peter F. Klemperer, Richard Shay, **Hassan Takabi**, Lorrie Cranor, and Lujo Bauer. *Exploring Reactive Access Control*. In Proc. 29th ACM Conference on Human Factors in Computing Systems (CHI 2011), Vancouver, BC, Canada, May 7-12, 2011.
- **Hassan Takabi** and James B. D. Joshi. *StateMiner: An Efficient Similarity-Based Approach for Optimal Mining of Role Hierarchy*. In Proc. 15th ACM symposium on access control models and technologies (SACMAT'10), Pittsburgh, PA, USA, June 9-11, 2010.
- **Hassan Takabi**, James B. D. Joshi, and Gail-Joon Ahn. *SecureCloud: Towards a Comprehensive Security Framework for Cloud Computing Environments*. In Proc. First IEEE International Workshop on Emerging Applications for Cloud Computing (CloudApp

- 2010). Held in conjunction with 34th Annual IEEE Computer Software and Applications Conference (COMPSAC 2010) Seoul, Korea, July 19-23, 2010.
- Lei Jin, **Hassan Takabi**, and James B.D Joshi. *Security and Privacy Risks: Using Email Address as Identity*. In Proc. Second IEEE International Conference on Information Privacy, Security, Risk and Trust (PASSAT2010), Minneapolis, USA, August 20-22, 2010.
 - Richard Shay, Michelle L. Mazurek, Peter F. Klemperer, and **Hassan Takabi**. *Exploring Reactive Access Control*. In Proc. 28th ACM Conference on Human Factors in Computing Systems (CHI 2010), Atlanta, GA, USA, April 10-15, 2010.
 - **Hassan Takabi**, James B. D. Joshi, and Hassan A. Karimi. *A Collaborative K-anonymity Approach for Location Privacy in Location-Based Services*. In Proc. 5th Int'l Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom 2009), Crystal City, Washington D.C., USA, November 11-14, 2009.
 - **Hassan Takabi**, Minsoo Kim, James B. D. Joshi, and Michael B. Spring. *An Architecture for Specification and Enforcement of Temporal Access Control Constraints using OWL*. In Proc. 2009 ACM Workshop on Secure Web Services (SWS 2009), Held in conjunction with the 16th ACM Conference on Computer and Communications Security (CCS 2009), pages 21–28. Chicago, IL, USA, November 13, 2009.
 - Ali E. Abdallah and **Hassan Takabi**. *Integrating Delegation with the Formal Core RBAC model*. In Proc. 4th International Symposium on Information Assurance and Security (IAS 2008), pages 33–36. Naples, Italy, September 8-10, 2008.
 - **Hassan Takabi**, Morteza Amini, and Rasool Jalili. *Separation of Duty in Role-Based Access Control Model through Fuzzy Relations*. In Proc. 3rd International Symposium on Information Assurance and Security (IAS 2007), pages 125–130. Manchester, UK, August 29-31, 2007.
 - **Hassan Takabi**, Morteza Amini, and Rasool Jalili. *Enhancing Role-Based Access Control Model through Fuzzy Relations*. In Proc. 3rd International Symposium on Information Assurance and Security (IAS 2007), pages 131–136. Manchester, UK, August 29-31, 2007.
 - **Hassan Takabi**, Morteza Amini, and Rasool Jalili. *Trust-Based User-Role Assignment in Role-Based Access Control*. In Proc. 2007 ACS/IEEE International Conference on Computer Systems and Applications (AICCSA 2007), pages 807–814. May 13-16, 2007.

Poster

- **Hassan Takabi** and James B. D. Joshi. *An Approach to manage Policy Heterogeneity in Cloud Computing Environment*. The 27th Annual Computer Security Applications Conference (ACSAC 2011), Orlando, FL, USA, December 5-9, 2011.
- Saman Taghavi Zargar, **Hassan Takabi**, and James B. D. Joshi *DCDIDP: A Distributed, Collaborative, and Data-driven IDP Framework for Cloud*. The 14th International Symposium on Recent Advances in Intrusion Detection (RAID'11), September 20-21, 2011, Menlo Park, CA.
- Michelle L. Mazurek, Peter F. Klemperer, Richard Shay, **Hassan Takabi**, Lorrie Cranor, and Lujo Bauer. *Exploring Reactive Access Control*. The sixth Symposium on Usable Privacy and Security (SOUPS), Redmond, WA, July 14-16, 2010.
- **Hassan Takabi** and James B. D. Joshi. *An Efficient Similarity-Based Approach for Optimal Mining of Role Hierarchy*. The 16th ACM Conference on Computer and Communications Security (CCS 2009), Chicago, IL, USA, November 9-13, 2009.

Submitted Paper

- Lei Jin, **Hassan Takabi**, Amirreza Masoumzadeh, and James B.D Joshi. *Active Detection of Identity Clone Attacks on Online Social Networks*. Submitted to the IEEE Transactions on Dependable and Secure Computing (TDSC).

Theses

- Hassan Takabi. *Fuzzy Role-Based Access Control System*. M.Sc. thesis, Department of Computer Engineering, Sharif University of Technology, 2007.

- Hassan Takabi. *Developing a filtering and monitoring software for Personal Computers with remote administration*. B.Sc. thesis, Department of Computer Engineering, Amirkabir University of Technology, 2004.

Teaching Experiences

Teaching

- Operating System Laboratory, Sharif University of Technology, Fall 2006.
- Operating System Laboratory, Sharif University of Technology, Summer 2006.
- Operating Systems, University of Applied Science and Technology, Winter 2006.
- Database Systems, University of Applied Science and Technology, Winter 2006.

Teaching Assistantship

- Developing Secure Systems, University of Pittsburgh, Spring 2011.
- Introduction to Security, University of Pittsburgh, Fall 2009.
- Security Management, University of Pittsburgh, Spring 2009.
- Developing Secure Systems, University of Pittsburgh, Spring 2009.
- Information Technology for Managers, Amirkabir University of Technology, Summer 2005.
- Information Technology for Managers, Amirkabir University of Technology, Spring 2005.

Work Experiences

- **LERSAIS, School of Information Sciences, University of Pittsburgh**, Pittsburgh, PA, USA, (August 2008-present).
Research Assistant.
- **E-Security Research Center, Institute for Computing Research (ICR), Faculty of BCIM, London South Bank University**, London, UK, (August 2007- July 2008).
Research Assistant.
- **Sharif Network Security Center, Sharif University of Technology**, (January 2006-August 2007).
Research Assistant.
- **SystemGroup Network Engineering Co.**, (April 2005-August 2007).
Network Security Manager of SystemGroup Co. (with about 40 branches in different provinces)
IT Security Expert
- **Amirkabir MetaNetworking Co**, (Sep 2003-Dec 2004).
System programmer.

Technical Skills

- Programming Languages: C/C++, Java, C#, Prolog, System programming and kernel development
- Mobile App Development
- Web Development
- Database Systems: Microsoft SQL Server, MySQL
- Operating Systems: Windows, Linux
- Networking and System Administration
- Network Security Administration

Activities

- Journal Review: Journal of Computer Security, IEEE Network magazine, IEEE Transaction on Knowledge and Data Engineering (TKDE), IEEE Transactions on Parallel and Distributed Systems (TPDS)
- Conference Review: HICSS 2012, CollaborateCom '11, WISE'11, SocInfo2011, MobiWIS-2011, Compsac 2011, Cloud 2011, SACMAT'11, WWW'11, IFIPTM2010, SACMAT'10, CollaborateCom '10, CollaborateCom '09, SACMAT'09, AINA'09.
- Webmaster, 11th IEEE International Conference on Information Reuse and Integration (IRI 2010).

- Committee Member, the 2008 International Conference on Security and Management (Sam'08), Las Vegas, Nevada, USA, 2008.
- Member: ACM, IEEE.
- President, School of Information Sciences Graduate student Organization (SISGO), University of Pittsburgh, 2010-2011, 2011-2012.
- School of Information Sciences representative in Graduate and Professional Student Assembly (GPSA), University of Pittsburgh, 2010-2011, 2011-2012.
- President, Doctoral Student Organization (Doctoral Guild), School of Information Sciences, University of Pittsburgh, Pittsburgh, PA, USA, 2009-2010.

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