

V.N. "Venkat" Venkatakrishnan

Vita

CONTACT INFORMATION	Department of Computer Science University of Illinois at Chicago Chicago, IL 60607	Voice : (312) 996-4860 Fax : (312) 413-0024 E-mail : venkat@cs.uic.edu WWW: http://www.cs.uic.edu/~venkat/
EDUCATION	Stony Brook University (Formerly, SUNY @ Stony Brook), New York USA 08/1998 - 12/2004 Ph.D. (Computer Science) - 05/2001 - 12/2004 <ul style="list-style-type: none">• GPA: 4.0 / 4.0• Ph.D. Advisor: R. Sekar, Professor of Computer Science M.S., (Computer Science) - 08/1998 - 05/2001 <ul style="list-style-type: none">• GPA: 4.0 / 4.0 Birla Institute of Technology & Science, Pilani, India 08/1992 - 07/1997 Master of Science (with honors) in Mathematics	
RESEARCH AND TEACHING EXPERIENCE	Dept. of Computer Science, University of Illinois @ Chicago 08/2010 - present <i>Associate Professor (with tenure)</i> Dept. of Computer Science, University of Illinois @ Chicago 12/2004 - 08/2010 <i>Assistant Professor</i> Secure Systems Lab, Dept. of Computer Science, SUNY @ Stony Brook 08/1999 - 11/04 <i>Graduate Research Assistant</i>	
INDUSTRIAL EXPERIENCE	HRL Research Laboratories., Malibu, CA 06/2001 - 08/2001 <i>Research Intern, Network Analysis and Systems group</i> Infosys Technologies Ltd. , Bangalore, India 08/1997 - 07/1998 <i>Software Engineer - Telecommunications</i>	
RESEARCH INTERESTS	<input type="checkbox"/> Application of program analysis and transformation techniques for addressing challenges in security and privacy. Specific areas include: <ul style="list-style-type: none">• Web application security• Web-based malware defense• Browser security• Software security (static, dynamic methods)• Privacy and information flow	
AWARDS AND HONORS	Awards/Honors <ul style="list-style-type: none"><input type="checkbox"/> UIC Teaching Recognition Program Award for 2009-10. (Campus-wide teaching excellence award, 19 out of 2574 faculty received it in 2009-10).<input type="checkbox"/> UIC College of Engineering Research Excellence Award, 2009-10. Three of over one hundred faculty in the College received the award in 2009-10.<input type="checkbox"/> NSF CAREER Award, 2009-14.<input type="checkbox"/> UIC College of Engineering Award for Excellence in Teaching, 2007-08. (7 out of 114 faculty in the college of Engineering were chosen for this award).	

- ❑ Center for Excellence in Information Assurance Education, Award by the National Security Advisory (NSA), 2007.
- ❑ Computer security curriculum, Committee on National Security Systems, Awarded to UIC for the period 2006-2009, renewed until 2014.
- ❑ Outstanding research paper award, 19th Annual Computer Applications Security Conference (ACSAC), Las Vegas NV, December 2003.
- ❑ Ericsson Graduate Fellowship for Academic Excellence awarded by the Dept. of Computer Science, SUNY Stony brook, Fall 2000.

PUBLICATIONS POST-JOINING UIC **Note:** Authors with an asterisk (*) are UIC students advised by me. Authors with two asterisks (**) are UIC undergraduate students advised by me.

Edited Volumes

- [1] Francois Murgadella and V.N. Venkatakrisnan. **Proceedings of the 3rd U.S.-France Young Engineering Scientists Symposium (YESS)**. July 2009.

Book Chapters

- [2] R. Sekar, V.N. Venkatakrisnan, S. Basu, S. Bhatkar and D.C. DuVarney. Model Carrying Code: A New Approach to Mobile Code Security . Book Chapter. **New Methods for Protecting Against Cyber Threats**. Wiley Publishing Inc., July 2007. pp:496-520.

Journal Papers

- [3] Prithvi Bisht*, P. Madhusudan and V.N. Venkatakrisnan. CANDID: Dynamic Candidate Evaluations for Automatic Prevention of SQL Injection Attacks, **ACM Transactions on Information and Systems Security (TISSEC)**, Volume 13, Issue 2, pages February 2010. ISSN: (Invited paper).
- [4] W. Sun, Z. Liang, V.N. Venkatakrisnan and R. Sekar. Alcatraz: A virtual environment for experimenting with untrustworthy Software. **ACM Transactions on Information and Systems Security (TISSEC)**, Volume 12, Issue 3, January 2009. ISSN: 1094-9224.
- [5] Mike Ter Louw*, Jin Soon Lim* and V.N. Venkatakrisnan. Enhancing Web Browser Security Against Malware Extensions. **Journal of Computer Virology**, Springer, Vol 4, Number 3, ISSN: 1772-9880. 2008. (Invited Paper).

Conference Papers

- [6] V.N. Venkatakrisnan, Prithvi Bisht*, Mike Ter Louw*, Michelle Zhou*, Kalpana Gondi* and Karthik Thotta Ganesh*. WebAppArmor: A Framework for Robust Prevention of Attacks on Web Applications, **Sixth International Conference on Information Systems Security**, Gandhinagar, India, December, 2010. (Invited Paper). To appear.
- [7] Michelle Zhou*, Prithvi Bisht*, V.N. Venkatakrisnan. Strengthening XSRF Defenses for Legacy Web Applications Using White-box Analysis and Transformation, **Sixth International Conference on Information Systems Security**, Gandhinagar, India, December, 2010. (14 papers accepted out of 51, 27.5%). To appear.
- [8] Prithvi Bisht*, Tim Hinrichs, Nazari Skrupsky**, Radoslaw Bobrowicz** and V.N. Venkatakrisnan. NoTamper: Automated Blackbox detection of Parameter Tampering Vulnerabilities. **ACM Conference on Computer and Communications Security (CCS)**, Chicago, IL. Oct 2010. (55 papers accepted out of 320. 17.6%).
- [9] Mike Ter Louw*, Karthik Thotta Ganesh* and V.N. Venkatakrisnan. AdJail: Practical Confidentiality and Integrity Policies on Web Advertisements . **USENIX Security Symposium (SECURITY'10)**, Washington D.C. Aug 2010. (30 papers accepted out of 202, 14.8%).
- [10] Prithvi Bisht*, A. Prasad Sistla and V.N. Venkatakrisnan. Automatically Preparing Safe SQL Queries. **Financial Cryptography and Data Security (FC'10)**, Tenerife, Spain. Jan 2010. (19 papers accepted out of 130, 14.6%).

- [11] Mike Ter Louw* and V.N. Venkatakrisnan. BLUEPRINT: Robust Prevention of Cross-site Scripting Attacks for Existing Browsers. **IEEE Symposium on Security and Privacy (Oakland'09)**, Oakland, CA, May 2009. (26 out of 254 papers accepted, 10.2%).
- [12] Roberto Capizzi*, Antonio Longo*, V.N. Venkatakrisnan and A. Prasad Sistla. Preventing Information Leaks Through Shadow Executions. **24th ACSA Computer Applications Security Conference (ACSAC'08)**, Anaheim, CA, December 2008. (42 out of 185 submissions accepted, 22.7%). Note:
- [13] Prithvi Bisht* and V.N. Venkatakrisnan. XSS-Guard: Precise Dynamic Prevention of Cross-site Scripting Attacks. **Detection of Intrusions, Malware and Vulnerability Assessment (DIMVA)**, Paris, France, July 2008. (13 out of 42 submissions accepted, 31%).
- [14] W. Sun, R. Sekar, Z. Liang and V.N. Venkatakrisnan. Managing Malware Threat by Securing Software Installations. **Detection of Intrusions, Malware and Vulnerability Assessment (DIMVA)**. Paris. France. July 2008. (13 out of 42 submissions accepted, 31%).
- [15] Mike Ter Louw*, Prithvi Bisht* and V.N. Venkatakrisnan. Analysis of Hypertext Isolation Techniques for XSS Prevention. **Web 2.0 Security and Privacy Workshop (W2SP)**, Oakland, California, 2008. (Acceptance rate 12 out of 36 papers, 33%).
- [16] A. Prasad Sistla, V.N. Venkatakrisnan, Michelle Zhou* and Hilary Branske*. CMV: Automatic Verification of Complete Mediation for Java Virtual Machines. **ACM Symposium of Information and Communications Security (ASIACCS)**, Tokyo, Japan, 2007. (Accepted 32 out of 182 submissions, 18%).
- [17] Sruthi Bandhakavi, Prithvi Bisht*, P. Madhusudan and V.N. Venkatakrisnan. CANDID: Preventing SQL injection attacks using Dynamic Candidate Evaluations. **ACM Conference on Computer and Communications Security (CCS)**, Alexandria, Virginia, Nov 2007. (Accepted 55 out of 303 submissions, 18.15%).
- [18] Mike Ter Louw*, Jin Soon Lim* and V.N. Venkatakrisnan. Extensible Web Browser Security. **Fourth GI International Conference on Detection of Intrusions & Malware, and Vulnerability Assessment (DIMVA'07)**, Luzerne, Switzerland, July 2007. (Accepted 14 out of 57 submissions, 24.5%).
- [19] Michael Leonhard** and V.N. Venkatakrisnan. A Comparative Study of Three Random Password Generators. **IEEE International conference on Information Technology (EIT'07)**, Chicago, IL. May 2007.
- [20] Tejas Khatiwala*, Raj Swaminathan* and V.N. Venkatakrisnan. Data Sandboxing: An approach for Enforcing Confidentiality Policies, **21st Annual Computer Applications Security Conference (ACSAC)**, Miami, FL, December 2006. (Accepted 32 out of 135 submissions 26.5%).
- [21] V.N. Venkatakrisnan, Wei Xu, Daniel C. DuVarney and R. Sekar. Provably Correct Runtime Enforcement of Non-interference Properties, **8th International Conference on Information and Communications Security (ICICS)**, Raleigh, NC, December 2006. (Acceptance rate 18.5%).
- [22] Doo San Sim* and V.N. Venkatakrisnan. SUEZ: A Distributed System Environment for System Administration Trials. **19th USENIX System Administration Conference (LISA)**, December 2006.
- [23] V.N. Venkatakrisnan, Wei Xu and R. Sharda*. On Active User Feedback in P3P. **2nd Secure Knowledge Management Workshop (SKM)**, New York, September 2006.
- [24] Wei Xu, V.N. Venkatakrisnan, R. Sekar and I.V. Ramakrisnan. A Framework for Privacy Conscious Web-services. **IEEE international conference on Web Services (ICWS)** (Application services track), Chicago, IL, Sep 2006. (Acceptance rate 17%).
- [25] Jon A. Solworth and V.N. Venkatakrisnan. Programming-Language based Analysis for Lifting to an Operating Systems Authorization Model, **2nd workshop on Programming Languages and Operating Systems (PLOS '05)**, Glasgow, UK, July 2005.
- [26] Wei Xu, V.N. Venkatakrisnan, R. Sekar and I.V. Ramakrisnan. An Approach for Realizing Privacy-preserving Web-based Services **World Wide Web conference (WWW '05)** (Refereed poster presentation), Chiba, Japan, May 2005.
- [27] V.N. Venkatakrisnan, Wei Xu, I.V. Ramakrisnan and R. Sekar. A Secure Composition Framework for Trustworthy Personal Information Assistants. **IEEE conference on Integration of Knowledge Intensive Multi-Agent Systems (KIMAS 05)**, Boston, April 2005.

- [28] W. Sun, Z. Liang, R. Sekar and V.N. Venkatakrishnan. One-way Isolation: An effective approach for realizing safe execution environments. **Network and Distributed Systems Security (NDSS 05)**, San Diego, February 2005. (Acceptance rate 13%).

PUBLICATIONS
PRIOR TO JOINING
UIC

- [29] Z. Liang, V.N. Venkatakrishnan and R. Sekar. Isolated Program Execution: An application transparent approach for executing untrusted programs. **19th Annual Computer Application Security Conference (ACSAC 03)**, Las Vegas, December 2003.
Note: This paper won the best paper award in the conference.
- [30] R. Sekar, V.N. Venkatakrishnan, S. Basu, S. Bhatkar and Daniel DuVarney. Model Carrying Code: A practical approach for safe execution of untrusted applications. **19th ACM Symposium on Operating System Principles (SOSP 03)**, Bolton Landing, New York, October 2003. (Acceptance rate 17%).
- [31] Daniel DuVarney, V.N. Venkatakrishnan and Sandeep Bhatkar. SELF: A transparent security extension for ELF binaries. **12th New Security Paradigms Workshop (NSPW 03)**, Ascona, Switzerland, August 2003. (Acceptance rate 30% 13/43).
- [32] V.N. Venkatakrishnan, R. Sekar, T. Kamat, S. Tsipa and Z. Liang. An approach for secure software installation. **16th USENIX System Administration Conference (LISA 02)**, Philadelphia, November 2002.
- [33] V.N. Venkatakrishnan, R. Peri and R. Sekar. Empowering mobile code using expressive security policies. **11th ACM New Security Paradigms Workshop (NSPW 02)**, Virginia beach, 2002.
- [34] C.R. Ramakrishnan, I.V. Ramakrishnan, S. A. Smolka, Y. Dong, X. Du, A. Roychoudhury and V.N. Venkatakrishnan. XMC: A logic programming-based verification toolset. **12th International conference on Computer Aided Verification (CAV 00)**, Chicago, Illinois, June 2000.
- [35] S. Wei, V. Tsaoussidis and V.N. Venkatakrishnan. QoS tradeoffs using partially reliable application-oriented transport protocol for multimedia applications over IP. **3rd IEEE Conference in Computational Intelligence and Multimedia Applications (ICCIMA 99)**, New Delhi, India, September 1999.

Technical Reports/Manuscripts

- [31] A. Mikva, T. Anjali, X. Jia, I. Robertson, V.N. Venkatakrishnan, C. Walker and K. McDermott. Report of the Election Review Panel on the Nov 7, 2006 Cook County Election Delays. Released to the press and general public, Jan 2007.
- [32] V.N. Venkatakrishnan. Recent approaches to ensure safe execution of untrusted code. Technical report. Department of Computer Science, SUNY at Stony Brook, August 2001.
- [33] V.N. Venkatakrishnan, D. Dhurjati, R. Peri and G. Srikumar. Java Stack Inspection: Eager evaluation revisited. Manuscript. Jan 2001.

EXTERNAL GRANTS **Over 5M in research grants as Lead PI.**

- ❑ Lead P.I. *IGERT: Electronic Security and Privacy: Technological, Human / Social, Enterprise and Legal Considerations*. National Science Foundation. \$3,200,000. 09/2011-08-2016.
- ❑ Sole-P.I. *A series of workshops on security in Emerging Areas*. National Science Foundation. \$29,369. 08/2011-08/2012.
- ❑ Co-P.I. *EAGER: From Development Tools to Secure Web Applications*. National Science Foundation. \$228,175. 08/2011-08-2013.
- ❑ Sole-P.I. *TC:Medium: Securing Web Advertisements: Fixing the Short-term Crisis and Addressing Long-term Challenges*. National Science Foundation. \$615,823. 09/2011-08/2014. .
- ❑ Co-PI. *A proposal for an Industry-University Collaborative Research Center in Security and Software Engineering*. National Science Foundation. \$13,000. 01/2010-01/2011.
- ❑ Lead P.I. *TC: Keeping Jack in the Box: Confining the role of Untrusted Inputs in Web Scenarios*. National Science Foundation. \$450,000. 09/02009-08/2012.
- ❑ Single-Investigator. *TC: A U.S.-France Symposium of Young Engineering Scientists (YESS)*. National Science Foundation. \$49,936. 09/2009-08/2010.

- ❑ Co-PI. *HS-STEM Fellowships*. U.S. Department of Homeland Security. \$200,000. 09/2009 - 08/2012.
- ❑ Single-Investigator. *CAREER: A Framework for Defending Web-based Attacks*. National Science Foundation. \$400,000. 09/2009 to 08/2014.
- ❑ Single-Investigator. *CT: Runtime Techniques for Protecting Confidential Information In Large Scale Software*. National Science Foundation. \$250,000. 08/2007 to 07/2009.
 - Single-Investigator. *Research Experiences for Undergraduates (REU) Supplement*. \$6,000. 06/2007 to 05/2008.
 - Single-Investigator. *Research Experiences for Undergraduates (REU) Supplement*. \$16,000. 08/2009 to 07/2010.
- ❑ Co-PI: *The Seclab at UIC*. National Science Foundation: Computing Research Infrastructure. \$159,000. 05/2006 to 05/2009.

- INTERNAL GRANTS
- ❑ Single-Investigator. *An instructional platform for Computer Security Laboratory Experiments*. Center for Excellence in Teaching and Learning. \$6500. 03/2007 to 02/2008
 - ❑ Single-Investigator. *Techniques for Security Analysis and Retrofitting of Password Programs*. Campus Research Board, UIC. \$12,376. 05/2006 to 08/2007. Ranked 1st out of 18 Science and Engineering proposals at UIC).

PROFESSIONAL
ACTIVITIES

Conference Program committees

- ❑ Program Committee Member, IEEE Symposium on Security and Privacy (Oakland), 2012.
- ❑ Program Committee Member, 21st World Wide Web Conference (WWW) (Security, Privacy and Abuse Track), Madrid, Spain, Apr 2012.
- ❑ NSF Proposal Review Panelist, 2011.
- ❑ Program Committee Member, 7th International Conference on Information Systems Security (ICISS), Calcutta, India, 2011.
- ❑ Program Committee Member, 27th ASCA Computer Applications Security Conference, (ACSAC 2010), Orlando, FL, December 2011.
- ❑ Program Committee Member, Web 2.0 Security and Privacy Workshop, (W2SP 2011), Oakland, CA, May 2011.
- ❑ Program Committee Member, 30th IEEE Symposium on Security and Privacy, (Oakland 2011), Oakland, CA, May 2011.
- ❑ Program Committee Member, Intl. Symposium on Engineering Secure Software and Systems (ESSoS), Madrid, Spain, Feb 2011.
- ❑ Program Committee Member, 6th International Conference on Information Systems Security (ICISS), Gandhinagar, India, 2010.
- ❑ Program Committee Member, 26th ASCA Computer Applications Security Conference, (ACSAC 2010), Austin, TX, December 2010.
- ❑ Program Committee Member, Network Security Symposium (NSS), Melbourne, Australia, Sept 2010.
- ❑ Program Committee Member, Recent Advances in Intrusion Detection (RAID 2010), Ottawa, Canada, Sept 2010.
- ❑ NSF Proposal Review Panelist, 2009.
- ❑ Program Committee Member, 30th IEEE Symposium on Security and Privacy, (Oakland 2010), Oakland, CA, May 2010.
- ❑ Program Committee Member, 25th ASCA Computer Applications Security Conference, (ACSAC 2009), Honolulu, Hawaii, December 2009.
- ❑ Program Committee Member, 16th ACM Conference on Computer and Communications Security, (CCS 2009), Chicago, IL.
- ❑ Program Co-chair. 3rd U.S.-France Young Engineering Scientists Symposium (YESS), Washington D.C., July 2009.
- ❑ Program Committee Member, 29th International Conference on Distributed Computing Systems (ICDCS 2009). Quebec, Canada.

- ❑ Program Committee Member, 18th World Wide Web Conference (WWW), Madrid, Spain, Apr 2009.
- ❑ NSF proposal review panel, 2008.
- ❑ Program Committee Member, 4th International Conference on Information Systems Security (ICISS), Hyderabad, India 2008.
- ❑ Program Committee Member, 24th ASCA Computer Applications Security Conference, (ACSAC 2008), Anaheim, CA, December 2008.
- ❑ Tutorial Chair, International Conference on Information Systems Security (ICISS), Hyderabad, India, December 2008.
- ❑ Program Chair, Sixth Midwest Security Workshop. Indianapolis, April 2008.
- ❑ Program committee member: 3rd International Conference on Distributed Computing and Internet Technology (ICDCIT) 2006.
- ❑ Program committee Member, New Security Paradigms Workshop, 2004.
- ❑ Program committee member, New Security Paradigms Workshop (NSPW) 2003. (Also administered the conference paper submissions/review process website).

Reviewer for:

- ❑ Network and Distributed Systems Security, 2011.
- ❑ ACM Transactions on Information and Systems Security, 2010.
- ❑ Journal of Computer Security (JCS 2009), ACM Transactions on Computing Education (TOCE 2009), Computer Security Foundations Symposium 2009, Network and Distributed Systems Security 2009, Wireless Networks 2008, Automated Technology for Verification and Analysis (ATVA) 2008 (ATVA), Recent Advances in Intrusion Detection (RAID) 2008, IEEE Symposium on Security and Privacy 2008, Network and Distributed Systems Security (2008), IEEE Symposium on Security and Privacy (2007), Transactions on Dependable and Secure Computing (TDSC) 2007, Journal of Wireless Networks 2006, ACM Symposium for Information, Communications and Computer Security (ASIACCS) 2006, ACM Computer and Communications Security 2005, International Workshop on Distributed Computing (IWDC) 2005, International Conference on Logic Programming (ICLP) 2005, ACM Computer and Communications Security (CCS) 2003, ACSA New Security Paradigms Workshop (NSPW) 2003, Recent Advances in Intrusion Detection (RAID) 2003, ACM New Security Paradigms Workshop (NSPW) 2002, ACM Computer and Communications Security (CCS) 2002, Recent Advances in Intrusion Detection (RAID) 2002, Foundations of Software Technology and Theoretical Computer Science (FSTTCS) 2000.

CONFERENCE ORGANIZATION

- ❑ Workshop Organizer. An Industry University Collaborative Research Center (I/UCRC) Planning Workshop. University of Illinois at Chicago, Sep 2011.
- ❑ Local Arrangements Committee member. ACM Conference on Computer and Communications Security 2010 in Chicago, IL.
- ❑ Local Arrangements Committee member. ACM Conference on Computer and Communications Security 2009 in Chicago, IL.
- ❑ General Chair for the fourth Midwest Security Workshop, Chicago, UIC campus, October 2007.

INVITED PARTICIPANT

- ❑ Invited Tutorial talk on Web Application Security. 24th Annual Computer Applications Security Conference (ACSAC) 2008.
- ❑ Invited Tutorial talk on Web Application Security. 23rd Annual Computer Applications Security Conference (ACSAC) 2007.

RESEARCH LAB AND CENTER ESTABLISHMENT

- ❑ Founded the Systems & Internet Security Laboratory (SISL) at UIC (<http://www.sisl.rites.uic.edu>). The lab currently has five Ph.D. students and two M.S. students and two B.S. students. Nine M.S. students and one B.S. student have graduated from the lab so far.
- ❑ Co-founded the Center for RITES (Research and Instructions for Technologies for Electronic Security). Currently serving as co-director. The center has 12 associated faculty.

UNIVERSITY
SERVICE

- Chair, Computer Committee, Dept of Computer Science, UIC. 01/2005 - Present.
- Member, Department advisory committee, Dept. of Computer Science, UIC. 2010-11. (Elected member).
- Presenter and Panelist, OVCR Workshop on NSF CAREER Proposal writing, 2010.
- Faculty Advisor, ACM-Sigmobile student chapter.
- College Representative, UIC Faculty Senate, 08/2005 - 05/2008 (Elected member).
- University Senate External Relations Committee 08-2005 - present. (Elected member)
- Faculty-in-Residence, UIC, 2007-09.
- Faculty Associate, UIC Campus Housing, 08/2005 - 15/2006
- Member, Colloquium Committee, Dept of Computer Science, UIC. 01/2005 - Present.
- Member, Undergraduate Committee, Dept of Computer Science, UIC. 01/2005 - Present.
- Member, Computer Committee, Dept of Computer Science, UIC. 01/2005 - Present.
- Member, Department advisory committee, Dept. of Computer Science, UIC. 08-2008-07-2009, 08-2005 -07-2006. (Elected member).
- Computer Science Grad student Executive Council member, Dept. of Computer Science, Stony Brook University. 08/2000 - 07/2001 (Elected member).

POST-DOCTORAL
SUPERVISION

- Prithvi Bisht. June 2011- Present.
- Tim Hinrichs. Sep 2011 - Present (jointly with Lenore Zuck).

STUDENT ADVISING

- Michelle Zhou, Ph.D. (Thesis topic: Java Security). Status: Post-prelim. Expected graduation: Fall 2011.
- Kalpana Gondi. Ph.D. (co-advise with A. Prasad Sistla). (Thesis topic: Secure Information Flow). Expected graduation: Summer 2012.
- Nazari Skrupsky. Ph.D. Expected graduation: Spring 2016.
- Nazari Skrupsky. Ph.D. (Thesis topic: Secure Web Applications). Expected graduation: Spring 2016.

PAST PH.D.
ADVISEES

- Prithvi Bisht. Ph.D. Thesis title: *Improving Web Security by Automated Extraction of Web Application Intent*. May 2011. First Employment: Post-doctoral Associate, University of Illinois at Chicago. (Honors at UIC: Nationwide top 10 finalist for Research award from NYU-Poly at CSAW 2010).
- Mike Ter Louw. Ph.D. Thesis title: *Towards Safe Rendering of Untrusted Third-Party Content in Existing Web Browsers*. October 2010. First Employment: Network Security Research Engineer, LGS Innovations. (Honors at UIC: Research Award from NYU-Poly at CSAW 2009, AEFCA Fellow 2009-10, Caterpillar Homeland Security Scholar 2008-09).

PAST M.S. AND B.S.
ADVISEES

- Karthik Thotta Ganesh. M.S. (with project). Project title: *Ad Policy Generator for the AdJail Framework*. May 2011. First employment: Cigital Inc.
- Praveen Venkatachari. M.S. (with project). Project title: *Evaluation of SWIPE: A tool for sensitive data lifetime reduction*. Nov 2011.
- Nazari Skrupsky. B.S. (with senior project). Project title: *NoTamper: Automated Blackbox detection of Parameter Tampering Vulnerabilities*. Aug 2010. (REU supported).
- Radoslaw Borbowicz. B.S. (with senior project). Project title: *NoTamper: Automated Blackbox detection of Parameter Tampering Vulnerabilities*. Aug 2010. (REU supported).
- Rohini Krishnamurthi, M.S. (with project). Project title: *Methods and Applications for Safe Execution of Untrusted JavaScript*. Graduation: Spring 2010. First Employment: Photon Infotech, India.
- Balasubramanian Ramachandran. M.S. (with project). Project title: *Autograder: A system for automatic grading of programming assignments*. Graduation: Dec 2009. First Employment: Microsoft Corporation.
- Chris Erickson, B.S. (with senior project). Dec 2010. (REU supported).
- Chris Pable, B.S. (with senior project). Dec 2010.

- ❑ Megha Chauhan, M.S. (project option). Project title: *An Efficient Implementation of Candidate Evaluation in a Java Environment*. Dec 2008. First employment: Polymedia Inc.
- ❑ Tanushree Varshney, M.S. (project option). Project title: *Supporting Character-level tracking in Dynamic Candidate Evaluation*. Aug 2008. First employment: Faculty member, KK Education Institute, Jabalpur, India.
- ❑ Jimish Jobanputra, M.S. (project option). Project title: *Robust Enforcement of Confidentiality Policies*. July 2008. First employment: Morning Star Inc.
- ❑ Antonio Longo. M.S. (with thesis). Thesis title: *Techniques for addressing confidentiality threats by candidate evaluations*. May 2008. First Employment: TechEdge Inc., Italy.
- ❑ Roberto Capizzi. M.S. (with thesis). Thesis title: *Protecting Confidentiality through shadow executions*. May 2008. First Employment: Accenture Inc., Italy.
- ❑ Doo San Sim, M.S. (project option). Project title: *A distributed safe execution environment for system administration trials*. November 2007. First employment: VMware Inc., Palo Alto, CA.
- ❑ Jin Soon Lim, M.S. (project option). Project title: *Policy-based Runtime Monitor for Browser Extensions*. July 2007. First Employment: Microsoft Corporation, Redmond, WA.
- ❑ Raj Swaminathan. Project Title: *A Static Information Flow Analysis Tool for Identifying Sensitive Program Regions*. First employment: Motorola Research Labs, Schaumburg, IL.
- ❑ Tejas Khatiwala. M.S. (With thesis). Thesis title: *A Program Partitioning Approach for Enforcement of Confidentiality Policies*. Thesis defense date: Oct 30, 2006. First employment: VMWare Inc.
- ❑ Michael Leonhard, B.S. (with senior project) December 2006. Project title: *A comparison of three random password generators*. First appointment: Amazon Inc.

SELECTED TALKS /
PANELS

- ❑ Keynote Speaker, International Conference on Information Systems Security (ICISS), Dec 2010.
- ❑ Invited Panelist, NSF Workshop on Cyber-security Data for Experimentation (CSDE), Arlington VA, Aug 2010.
- ❑ University of Texas at Dallas, Aug 2010.
- ❑ University of Michigan, Oct 2009.
- ❑ Stony Brook University, Sep 2009.
- ❑ Symposium on Usable Security and Privacy (USP), National Academy of Sciences, July 2009.
- ❑ Office of Science and Technology, France, July 2009.
- ❑ Accenture Research Labs, May 2009.
- ❑ Dagstuhl Seminar on Web Security. Mar 2009.
- ❑ Center for Education and Research in Information Assurance and Security (CERIAS), Purdue University, Nov 2007.
- ❑ Motorola Research Labs Security group. October 18, 2007.
- ❑ Ebay Information Security Strategy Group. October 2007.
- ❑ Department of Computer Science, University of Missouri, Kansas city. April 2005.
- ❑ Invited panel speaker: 18th Annual Computer Applications Security Conference (ACSAC) 2002.
- ❑ Several talks (more than 20) between 2001 and 2006.

SOFTWARE
PROTOTYPES
DEVELOPED AFTER
JOINING UIC

- Note: Some Tools available from the lab home page : <http://www.sisl.rites.uic.edu> . They have also been shared with other researchers working on related efforts.
- ❑ NoTamper: blackbox testing for parameter tampering vulnerabilities (jointly with Prithvi Bisht, Tim Hinrichs, Nazari Skrupsky, Radoslaw Bobrowicz). Oct 2010. (to appear).
 - ❑ AdJail: security for web advertisements (jointly with Mike Ter Louw and Karthik Thotta Ganesh). Aug 2010.
 - ❑ Blueprint: a tool for preventing cross-site scripting attacks. May 2009. (Jointly with Mike Ter Louw).
 - ❑ CANDID-VM. a Java VM for preventing SQL injection attacks. Jan 2009. (jointly with Megha Chauhan and Prithvi Bisht).
 - ❑ Submitted security patch to the Firefox browser for official review. 2008. (jointly with Mike Ter Louw)
 - ❑ CANDID: a program transformation tool for preventing SQL injection attacks. (jointly with

Prithvi Bisht).

- ❑ CMV: A program analysis tool for checking stack inspection errors in Java applications. (jointly with Michelle Zhou and Prasad Sistla).
- ❑ Data Sandboxing tool: A program partitioning tool for C programs. (jointly with Tejas Khatiwala and Raj Swaminathan).
- ❑ SUEZ: a distributed safe execution environment for experimenting with untrustworthy software. (jointly with Doo San Sim).

SERVICE TO
GENERAL PUBLIC

- ❑ Continuing to serve on the Cook County Election Review Panel for overseeing technical issues related to electronic voting equipment, 2007 - present.
- ❑ Served in the blue ribbon technical panel that investigated delays in the Cook County election in November 2006.