

Timothy L. Hinrichs

CONTACT INFORMATION

Department of Computer Science Voice: (650) 521-2988
University of Illinois at Chicago E-mail: hinrichs@uic.edu
Chicago, IL 60607 WWW: <http://www.cs.uic.edu/~hinrichs/>

EDUCATION

Stanford University	Computer Science	Ph.D.	Jan. 2008
Stanford University	Computer Science	M.S.	Jan. 2007
University of Illinois at Urbana-Champaign	Computer Science	B.S. (Honors)	May 2001

APPOINTMENTS

Postdoctoral Researcher	University of Illinois-Chicago Computer Science Dept	Nov 2011–Present
Adjunct Assistant Professor	University of Illinois-Chicago Computer Science Dept	Nov 2010 – Oct 2011
Research Professional	University of Chicago Computer Science Dept	Oct 2010 – Aug 2011
Postdoctoral Scholar	University of Chicago Computer Science Dept	Sep 2007 – Sep 2010
Research Assistant	Stanford University Computer Science Dept	Sep 2001 – Sep 2007
Supercomputing Intern	Lawrence Livermore National Lab	Summer 2001
Research Assistant	University of Illinois at Urbana-Champaign	Summer 2000
Web Development Intern	Levi, Ray, & Shoup	Summer 1998, 1999

TEACHING EXPERIENCE

- Lecture: *Herbrand's Theorem and Alternative Semantics* in Logic and Automated Reasoning, Stanford University 2006.
- Lecture: *Game Analysis* in General Game Playing, Stanford University 2005.
- Teaching assistant for Logic and Automated Reasoning, Stanford University 2004. Developed homework, final exam, and programming project. Lecture: *Unification*.
- Teaching assistant for Logic and Automated Reasoning, Stanford University 2002. Lecture: *Incorporating Specialized Algorithms into General Proof Procedures*.

REFEREED PUBLICATIONS

1. Skrupsky, N., Bisht, P., Hinrichs, T. L., Monshizadeh, M. and Venkatakrisnan, V. N.: *WAVS: Web Application Validation Synthesis*, in preparation.
2. Hinrichs, T. L., Garrison, W. C., Lee, A. J. and Mitchell, J. C.: *Application-Sensitive Access Control Evaluation: Logical Foundations*, under review.
3. Garrison, W. C., Lee, A. J. and Hinrichs, T. L.: *Application-Sensitive Access Control Evaluation: Suitability and Cost Analysis*, under review.
4. Bisht, P., Hinrichs, T. L., Venkatakrisnan, V. N. and Zuck, L.: *Development-Friendly, Usable, Secure Web Interfaces: Formal Methods to the Rescue*, under review.
5. Bisht, P., Hinrichs, T. L., Skrupsky, N. and Venkatakrisnan, V. N.: *WAPTEC: Whitebox Analysis of Web Applications for Parameter Tampering Exploit Construction*, In Proceedings of the ACM Conference on Computer and Communications Security (CCS), pp. 445-456, 2011.
6. Hinrichs, T. L.: *Plato: A Compiler for Interactive Web Forms*, In Proceedings of the Symposium on Practical Aspects of Declarative Languages (PADL), 2011.
7. Hinrichs, T. L., Garrison, W. C., Lee, A. J., Saunders, S. and Mitchell, J. C.: *TBA: A Hybrid of Logic and Extensional Access Control Systems*, In Proceedings of the International Workshop on Formal Aspects of Security and Trust (FAST), 2011.

8. Bisht, P., Hinrichs, T. L., Skrupsky, N., Bobrowicz, R. and Venkatakrishnan, V. N.: *NoTamper: Automatic Blackbox Detection of Parameter Tampering Opportunities in Web Applications*, In Proceedings of the ACM Conference on Computer and Communications Security (CCS), pp. 607-618, 2010. **Top 10 finalist for the 2010 AT&T Best Applied Security Research Paper award.**
9. Chae, W. and Hinrichs, T. L.: *SmartForm: A Web-based feature configuration tool*, In Proceedings of the International Workshop on Variability Modelling of Software-intensive Systems (VAMOS), pp. 183-186, 2010.
10. Hinrichs, T. L., Gude, N., Casado, M., Mitchell, J. C. and Shenker, S.: *Practical Declarative Network Management*, In Proceedings of the ACM SIGCOMM Workshop on Research on Enterprise Networking (WREN), pp. 1-10, 2009.
11. Hinrichs, T. L., Kao, J. and Genesereth, M. R.: *Inconsistency-tolerant Reasoning with Classical Logic and Large Databases*, In Proceedings of the Symposium of Abstraction, Reformulation, and Approximation (SARA), 2009.
12. Hinrichs, T. L.: *Collaborative Programming: Applications of logic and automated reasoning*, In Proceedings of the IJCAR Workshop on Practical Aspects of Automated Reasoning (PAAR), 2008.
13. Hinrichs, T. L. and Genesereth, M. R.: *Injecting the How into the What: Investigating a Finite Classical Logic*, In Proceedings of the International Conference on Principles of Knowledge Representation and Reasoning (KR), pp. 92-102, 2008.
14. Hinrichs, T. L. and Genesereth, M. R.: *Extensional Reasoning*, In Proceedings of the CADE Workshop on Empirically Successful Automated Reasoning in Large Theories, 2007.
15. Hinrichs, T. L. and Genesereth, M. R.: *Reformulation for Extensional Reasoning*, In Proceedings of the Symposium of Abstraction, Reformulation, and Approximation (SARA), pp. 215-229, 2007.
16. Hinrichs, T. L. and Genesereth, M. R.: *Axiom Schemata as Metalevel Axioms: Model Theory*, In Proceedings of the AAI Conference on Artificial Intelligence (AAAI), pp. 294-299, 2005.
17. Hinrichs, T. L., et al.: *Using Object-Oriented Constraint Satisfaction for Automated Configuration Generation*, In Proceedings of the IFIP/IEEE International Workshop on Distributed Systems: Operations and Management (DSOM), pp. 159-170, 2004.
18. Petrie, C. J., et al.: *Adding AI to Web Services*, Lecture Notes in Artificial Intelligence 2926, pp. 322-338, 2004.

TECHNICAL REPORTS AND THESES

1. Hinrichs, T. L., Garrison, W. C., Lee, A. J., Saunders, S. and Mitchell, J. C.: *TBA: A Hybrid of Logic and Extensional Access Control Systems*, University of Illinois at Chicago, 2011.
2. Hinrichs, T. L.: *Plato: A Compiler for Interactive Web Forms*, University of Chicago, 2010.
3. Hinrichs, T. L., Kao, J. and Genesereth, M. R.: *Automatic Web Form Construction via Compilation of Paraconsistent Entailment to Relational Databases*, University of Chicago, 2010.
4. Hinrichs, T. L., Kao, J. and Genesereth, M. R.: *Inconsistency-tolerant Reasoning with Classical Logic and Large Databases*, University of Chicago, 2009.
5. Hinrichs, T. L., Gude, N., Casado, M., Mitchell, J. C. and Shenker, S.: *Expressing and Enforcing Flow-based Network Security Policies Language*, University of Chicago, 2008.
6. Hinrichs, T. L., Hicks-Wright, T., Petrie, C. J., Schkufza, E. and Genesereth, M. R.: *Transfer Learning Level Definitions*, Stanford University, 2007.
7. Hinrichs, T. L.: *Extensional Reasoning*, Stanford University, 2007.
8. Love, N. C., Hinrichs, T. L. and Genesereth, M. R.: *General Game Playing: Game Description Language Specification*, Stanford University, 2006.

9. Hinrichs, T. L., Love, N. C. and Genesereth, M. R.: *Object-Oriented Constraint Satisfaction Problems*, Stanford University, 2006.
10. Hinrichs, T. L. and Genesereth, M. R.: *Herbrand Logic*, Stanford University, 2006.
11. Hinrichs, T. L., Love, N. C. and Genesereth, M. R.: *Automatically Proving Playability Through Abstraction*, 2005.

EXTERNAL FUNDING

- Commercial Funding: LogicBlox, May 2010 – May 2011

AWARDS

- University of Illinois at Urbana-Champaign Bronze Tablet, 2001
- University of Illinois at Urbana-Champaign 4.0 Senior in Computer Science, 2001
- University of Illinois at Urbana-Champaign Dunn Systems Scholarship, 2000
- University of Illinois at Urbana-Champaign Ford Scholarship, 1999
- University of Illinois at Urbana-Champaign J.N. Snyder Outstanding Undergraduate, 1999

SERVICE

- Reviewer for CADE 2009, ICTIA 2007, Journal of Computer Security, Future Internet, FC2012, WWW2012, TACAS 2012, Oakland 2012
- NSF (IIS) Panel 2009, 2010
- Student mentoring: Daniel Tarlow (Stanford Undergraduate Research College, 2004), Mark Richards (University of Illinois at Urbana-Champaign thesis committee, 2011)

INVITED TALKS

- *Plato: A Compiler for Web Forms*. University of Illinois at Chicago, Combinatorics and Computer Science Seminar, December 2010.
- *Towards a Flow-level Network Security System*. University of Illinois at Urbana-Champaign, ITI Trust and Security Seminar, October 2008.
- *Collaborative Programming*. University of Illinois at Urbana-Champaign, KRR Group, October 2008.
- *Collaborative Programming*. University of Illinois at Chicago, Computer Science Seminar, September 2008.
- *Collaborative Programming*. Summer School on Logic Programming and Computational Logic, New Mexico State University, July 2008.
- *Collaborative Programming*. DSL Workshop, University of Chicago, May 2008.
- *Extensional Reasoning*. SRI International's Artificial Intelligence Center, August 2007.
- *Extensional Reasoning*. University of Munich's Institute for Informatics, July 2007.
- *Extensional Reasoning*. UC Berkeley Logic Workshop, June 2007.
- *Extensional Reasoning*. University of Illinois at Urbana-Champaign KRR Group, December 2006.
- *Extensional Reasoning*. SRI International's Artificial Intelligence Center, May 2006.