

## Robert H. Sloan

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### Education

#### *Massachusetts Institute of Technology*

Ph.D. in Computer Science, June, 1989.

Thesis: Computational Learning Theory: New Models and Algorithms.

Ph.D. adviser: Prof. Ronald Rivest.

S.M. in Electrical Engineering and Computer Science, September 1986.

Thesis: The Notion of Security for Probabilistic Public-key Cryptosystems.

Adviser: Prof. Silvio Micali.

#### *Yale Law School*

Classes in law, 1983–1984.

#### *Yale College*

B.S. in mathematics, May, 1983. Graduated *summa cum laude* with honors in mathematics; Phi Beta Kappa.

### Work Experience

#### *University of Illinois at Chicago*

Professor, Department of Computer Science, August 2006–present.

Department Head, August 2009–present.

Acting Department Head, 2007–2008; Interim Department Head, 2008–2009.

Director of Graduate Studies, August 2004–2007.

Associate Professor, Dept. of Computer Science (combined EECS Dept. until July 2001), August 1996–August 2006.

Assistant Professor in the Department of Electrical Engineering and Computer Science, 1990–1996.

#### *National Science Foundation*

Program Director for Theory of Computing Program.

Division of Computer-Communications Research (subsequently renamed Computer-Communications Foundations) in CISE Directorate, Jan. 2001–Aug. 2002.

Managed \$8.1 million base program budget as well as \$11 million of Information Technology Research (ITR) grants.

#### *Harvard University*

Postdoctoral fellow under Prof. Leslie Valiant in the Computer Science Department, 1989–90.

- Research Interests** Theory and algorithms, especially theory applied to problems from artificial intelligence in general and knowledge representation and machine learning in particular.
- Computer security and cryptography, especially legal and public policy issues.
- Computer science education.
- Publications: Book** R. Warner and R. H. Sloan, *Unauthorized Access: The Crisis in Online Privacy and Security*, under contract with Taylor-Francis, expected to appear late 2012.
- R. Shackelford, J. H. Cross, G. Davies, J. Impagliazzo, R. Kamali, R. LeBlanc, B. Lunt, A. McGettrick, R. H. Sloan, and H. Topi, *Computing Curricula 2005: The Overview Report*, IEEE Computer Society Press, 2006.
- J. Kivinen and R. H. Sloan (eds.), *Computational Learning Theory: Proceedings of COLT 2002*, Springer, 2002.
- C. Chang, J. H. Cross, G. Engle, R. Sloan, D. Carver, R. Eckhouse, W. King, F. Lau, P. Srimani, E. Roberts, R. Shackelford, R. Austing, C. F. Cover, G. Davies, A. McGettrick, G. M. Schneider, and U. Wolz, *Computing Curricula 2001*, IEEE Computer Society Press, December 2001.
- Publications: Journals** R. H. Sloan, D. Stasi, and G. Turán, “Random Horn Formulas and Propagation Connectivity for Directed Hypergraphs,” *Discrete Mathematics and Theoretical Computer Science*. Accepted for publication pending minor revision.
- R. Warner and R. H. Sloan, “Vulnerable Software: Product-Risk Norms and the Problem of Unauthorized Access,” *University of Illinois Journal of Law, Technology, and Policy*, In Press. Preliminary version available from SSRN.
- M. Langlois and R. H. Sloan, “Reinforcement learning via approximation of the Q-function,” *Journal of Experimental & Theoretical Artificial Intelligence*, 22(3): 219–235, 2010.
- M. Langlois, R. H. Sloan and G. Turán, “Horn Upper Bounds and Renaming,” *JSAT: Journal on Satisfiability, Boolean Modeling and Computation*, 7: 1–15, URL <http://jsat.ewi.tudelft.nl/>, 2009.
- R. H. Sloan, B. Szörényi, and G. Turán, “Projective DNF formulae and their revision”, *Discrete Applied Mathematics*, 156(4): 530–544, 2008.
- R. H. Sloan, B. Szörényi, and G. Turán, “On  $k$ -term DNF with the largest number of prime implicants,” *SIAM J. Discrete Mathematics*, 21(4): 987–998, Jan. 2008.
- R. H. Sloan, B. Szörényi, and G. Turán, “Revising Threshold Functions”, *Theoretical Computer Science*, 382: 198–208, 2007.
- P. Berman, B. DasGupta, D. Mubayi, R. H. Sloan, G. Turán, and Y. Zhang, “The Inverse Protein Folding Problem on 2D and 3D Lattices”, *Discrete Applied Mathematics*, 155(6–7): 719–732, 2007.

- Publications:** Z. Furedi, R. H. Sloan, K. Takata, and G. Turán, “On Set Systems with a Threshold Property,” *Discrete Mathematics*, 306: 3097-3111, Dec. 2006.
- Journals**
- (cont.)**
- J. Goldsmith and R. H. Sloan, “New Horn Revision Algorithms,” *Journal Machine Learning Research*, 6: 1919–1938, Dec. 2005.
- R. Sloan, “Guest Editor’s Foreword: Special issue on computational learning theory,” *Journal of Computer and System Sciences*, 70: 433–434, 2005.
- J. Goldsmith, R. H. Sloan, B. Szörényi, and G. Turán, “Theory Revision with Queries: Horn, Read-once, and Parity Formulas,” *Artificial Intelligence Journal*, 156: 139–176, 2004.
- T. S. Messerges, E. A. Dabbish, and R. H. Sloan, “Investigations of Power Analysis Attacks on Smartcards,” *IEEE Transactions on Computers*, 51: 541–552, May 2002.
- J. Goldsmith, R. H. Sloan, and G. Turan, “Theory Revision with Queries: DNF Formulas,” *Machine Learning* 47(2-3): 257–295, May–June 2002.
- U. Buy and R. H. Sloan, “Automatic Real-Time Analysis of Reactive Systems with the PARTS Toolset,” *Automated Software Engineering*, 8(3/4): 227–273, Aug. 2001.
- C. K. Chang, G. Engle, W. King, E. Roberts, R. Shackelford, R. H. Sloan, and P. K. Sri-  
mani, “Curricula 2001: Bringing the Future to the Classroom,” *IEEE Computer*, 32(9):  
85–88, Sept. 1999
- A. P. Sistla, O. Wolfson, Y. Uesha, and R. H. Sloan, “Towards a Theory of Cost man-  
agement for Digital Libraries,” *ACM Trans. Database Systems (TODS)*, 23(4): 411–452 ,  
Dec. 1998.
- R. H. Sloan, K. Takata, and G. Turán, “On Frequent Sets of Boolean Matrices,” *Mathemat-  
ics and Artificial Intelligence*, 24: 193–209, 1998.
- R. H. Sloan and U. Buy, “Stubborn Sets for Real-Time Petri Nets,” *Formal Methods and  
System Design*, 11: 23-40, 1997.
- D. Angluin, M. Krişis, R. H. Sloan, and G. Turán, “Malicious Omissions and Errors in  
Answers to Membership Queries,” *Machine Learning*, 28: 211-255, 1997.
- R. H. Sloan and U. Buy, “Reduction Rules for Time Petri Nets,” *Acta Informatica*, 33:  
687–706, Oct. 1996.
- R. H. Sloan, “Four types of noise in data for PAC learning,” *Information Processing Let-  
ters*, 54: 157–162, 1995.
- S. A. Goldman and R. H. Sloan, “Can PAC Learning Algorithms Tolerate Random At-  
tribute Noise?,” *Algorithmica*, 14: 70–84, July 1995.
- R. L. Rivest and R. H. Sloan, “A Formal Model of Hierarchical Concept Learning,” *Infor-  
mation and Computation*, 114(1): 88–114, October 1994.

- Publications:** S. A. Goldman and R. H. Sloan, “The Power of Self-Directed Learning,” *Machine Learning*, 14(3): 271–294, March 1994.
- Journals**
- (cont.)**
- R. L. Rivest and R. H. Sloan, “On Choosing Between Experimenting and Thinking When Learning,” *Information and Computation*, 106(1): 1–25, September 1993.
- D. Helmbold, R. H. Sloan, and M. Warmuth, “Learning Integer Lattices,” *SIAM Journal of Computing*, 21(2): 240–266, 1992.
- D. Helmbold, R. H. Sloan, and M. Warmuth, “Learning Nested Differences of Intersection-Closed Concept Classes,” *Machine Learning* 5(2): 165–196, 1990.
- S. Micali, C. Rackoff, and R. Sloan, “The Notion of Security for Probabilistic Cryptosystems,” *SIAM Journal of Computing* 17(2): 412–426, 1988.
- Publications:** R. H. Sloan, B. Szörényi, and G. Turán, “Learning Boolean Functions with Queries,” in *Boolean Models and Methods in Mathematics, Computer Science, and Engineering*, (Encyclopedia of Mathematics and its Applications, No. 134), Cambridge University Press, pp. 221–256, 2010.
- In Collection**
- R. H. Sloan, “PAC Learning, Noise, and Geometry,” in *Progress in Automation and Information Systems*, Birkhauser, pp. 21–41, 1996.
- Publications:** R. H. Sloan, D. Stasi, and G. Turán, “Hydra formulas and related problems for Horn minimization: A preliminary progress report,” *Workshop on Boolean and Pseudo-Boolean Functions at the International Symposium on AI and Mathematics (ISAIM)*, 2012, to appear.
- Competitive**
- Conferences**
- M. Russom, R. H. Sloan, and R. Warner, “Legal Concepts of Privacy Meet Technology: A 50-State Survey,” *Proc. Workshop on Governance of Technology, Information, and Policies (GTIP)* (electronic only), 2011.
- K. Adaricheva, R. H. Sloan, B. Szörényi, and G. Turán, “Horn belief contraction: Remainders, envelopes and complexity,” *Proc. Commonsense Reasoning Workshop* (electronic only), 2011.
- R. H. Sloan and R. Warner, “Developing foundations for accountability systems: Informational norms and context-sensitive judgments,” *Proc. Workshop on Governance of Technology, Information, and Policies (GTIP)* (electronic only), 2010.
- M. Langlois, D. Mubayi, R. H. Sloan, and G. Turán, “Combinatorial Problems for Horn Clauses.” *Proc. Graph Theory, Computational Intelligence and Thought*, pp. 54–65, 2009.
- M. Langlois, R. H. Sloan, B. Szörényi, and G. Turán, “Horn Complements: Towards Horn-to-Horn Belief Revision,” *Proc. Twenty-Third AAAI Conference on Artificial Intelligence (AAAI-08)*.

- Publications:** R. H. Sloan, and P. Troy, “CS 0.5: A Better Approach to Introductory Computer Science for Majors,” *Proc. 39th SIGCSE Technical Symposium on Computer Science Education*, pp. 271–275, March 2008.
- Competitive Conferences (cont.)**
- L. N. Cassel, M. E. Caspersen, G. Davies, R. McCauley, A. D. McGettrick, A. B. Pyster, and R. H. Sloan, “Curriculum Update from the ACM education board: CS2008 and a Report on Masters Degrees,” *Proc. 39th SIGCSE Technical Symposium on Computer Science Education*, pp. 530–531, March 2008.
- M. Langlois, D. Mubayi, R. H. Sloan, and G. Turán, “Combinatorial problems for Horn clauses”, Tenth International Symp. Artificial Intelligence and Mathematics, online proceedings at <http://isaim2008.unl.edu/index.php?page=proceedings>, 2008.
- J. Goldsmith and R. H. Sloan, “The AI Conference Paper Assignment Problem,” *Proc. AAAI 2007 Workshop on Preference Handling for Artificial Intelligence*, July 2007.
- M. Langlois, R. H. Sloan, and G. Turán, “Horn Upper Bounds and Renaming,” *Proc. SAT 2007: Tenth International Conference on Theory and Applications of Satisfiability Testing*, May, 2007.
- L. N. Cassel, A. D. McGettrick, Gordon Davies, H. Topi, and R. H. Sloan, “An initiative to attract students to computing,” *Proc. 38th SIGCSE Technical Symposium on Computer Science Education*, pp. 133–134, 2007.
- L. N. Cassel, R. H. Sloan, G. Davies, H. Topi and A. McGettrick: “The Computing Ontology Project: the Computing Education Application,” *Proc. 38th SIGCSE Technical Symposium on Computer Science Education*, pp. 519–520, 2007.
- S. Dranger, Robert H. Sloan, and J. A. Solworth, “The Complexity of Discretionary Access Control”, *Proc. Advances in Information and Computer Security, First Intl. Workshop on Security (IWSEC 06)*, Springer Lecture Notes in Computer Science, pages 405–420, 2006.
- M. Langlois, R. H. Sloan, and G. Turán, “Horn Upper Bounds of Random 3-CNF: A Computational Study”, Ninth International Symp. Artificial Intelligence, online proceedings at <http://anytime.cs.umass.edu/aimath06/proceedings.html>, 2006.
- L. Cassel, A. McGettrick, and R. H. Sloan, “A Comprehensive Representation of the Computing and Information Disciplines,” *Proc. 37th SIGCSE Technical Symposium on Computer Science Education*, pages 199–200, 2006.
- R. Shackelford, A. McGettrick, R. Sloan, H. Topi, G. Davies, R. Kamali, J. Cross, J. Impagliazzo, R. LeBlanc, and B. Lunt, “Computing Curricula 2005: The Overview Report,” *Proc. 37th SIGCSE Technical Symposium on Computer Science Education*, pages 456–457, 2006.

**Publications:  
Competitive  
Conferences  
(cont.)**

J. Goldsmith, R. H. Sloan, B. Szörényi, and G. Turán, “Theory Revision with Queries: Results and Problems”, in *Proc. Workshop on Learning with Logics and Logics for Learning (LLLL)*, June 2005, pages 39–44.

M. Irodova and R. H. Sloan, “Reinforcement Learning and Function Approximation,” *Proc. Eighteenth International Florida Artificial Intelligence Research Society Conference (FLAIRS)*, pages 455–460, 2005.

Lillian Cassel, Russell Shackelford, and Robert H. Sloan, Special Session: “A Synthesis and Ontology of All of Computing”, in *Proc. 36th SIGCSE Tech. Symp. on Computer Science Education*, pages 65-66, 2005.

J. Goldsmith, R. H. Sloan, B. Szörényi, and G. Turán, “Revising Horns and Threshold formulas,” *Proc. Algorithmic Learning Theory, 15th International Conference (ALT 2004)*, volume 3244 of Lecture Notes in Artificial Intelligence, pages 395–409. Springer, 2004.

J. A. Solworth and R. H. Sloan, “Security Property Based Administrative Controls”, in *Proc. 9th European Symposium on Research in Computer Security (ESORICS)*, volume 3139 of Springer Lecture Notes in Computer Science, pages 244–259, 2004.

J. A. Solworth and R. H. Sloan, “A Layered Design of Discretionary Access Controls with Decidable Safety Properties”, *Proc. 2004 IEEE Symposium on Security and Privacy*, pages 56–67, May 2004.

P. Berman, B. DasGupta, D. Mubayi, R. H. Sloan, G. Turán, and Y. Zhang, “The Protein Sequence Design Problem in Canonical Model on 2D and 3D Lattices”, *Proc. Combinatorial Pattern Matching 2004*, volume 3109 of Lecture Notes in Computer Science, pages 244–253. Springer, 2004. pages 355-356, 2003.

R. L. Shackelford, L. N. Cassel, J. H. Cross, J. Impagliazzo, E. Lawson, R. J. LeBlanc, A. D. McGettrick, R. H. Sloan, and H. Topi, “Computing curricula 2004: the overview project,” *Proc. 35th SIGCSE Tech. Symp. on Computer Science Education*, page 501, 2004.

T. Horváth, R. H. Sloan, and G. Turán, “Learning Logic Programs with Unary Partial Function Graph Background Knowledge”, *First International Workshop on Mining Graphs, Trees and Sequences (MGTS-2003)*, 2003. Available on-line at URL <http://www.ar.sanken.osaka-u.ac.jp/~washio/list/MGTS-2003Program.html>.

R. H. Sloan and B. Szörényi, “Revising projective DNF in the presence of noise,” In *Proc. Kalmar Workshop on Logic and Computer Science*, October 2003, pages 143–152.

R. H. Sloan, B. Szörényi, and G. Turán, “Projective DNF Formulae and Their Revision,” *Proceedings of the Sixteenth Annual Conference on Computational Learning Theory (COLT 2003)*, Springer Lecture Notes in AI 2777, pp. 625–639.

J. Impagliazzo, R. H. Sloan, A. D. McGettrick, and P. K. Srimani, “Computer engineering computing curricula,” *Proc. 34th SIGCSE Tech. Symp. on Computer Science Education*,

- Publications:** E. Roberts, C. F. Cover, G. Davies, M. Schneider, and R. H. Sloan, “Computing Curricula  
**Competitive** 2001: implementing the recommendations,” *Proc. 33rd SIGCSE Tech. Symp. on Computer  
Conferences* *Science Education*, pages 167–168, 2002.  
**(cont.)**
- J. Goldsmith, R. H. Sloan, B. Szörényi, and G. Turán, “Improved Algorithms for Theory Revision with Queries,” *Proceedings of the Thirteenth Annual Conference on Computational Learning Theory (COLT 2000)*, pp. 236–247, July 2000.
- J. Goldsmith and R. H. Sloan, “More theory revision with queries,” *Proceedings of the 2000 ACM Symposium of Theory of Computing (STOC)*, pp. 441–448, May 2000.
- J. Goldsmith and R. H. Sloan, “The Complexity of Model Aggregation,” *Proceedings of the Fifth International Conference on Artificial Intelligence Planning & Scheduling (AIPS2000)*, pp. 122–129, April 2000.
- T. S. Messerges, E. A. Dabbish, and R. H. Sloan, “Power Analysis Attacks of Modular Exponentiation in Smartcards,” in *Proceedings of the Workshop on Cryptographic Hardware and Embedded Systems*, Springer-Verlag, August 1999, pp 144–157.
- R. H. Sloan and G. Turán, “On theory revision with queries,” in *Proceedings of the Thirteenth Annual Conference on Computational Learning Theory (COLT 99)*, pp. 41–52, July 1999.
- T. S. Messerges, E. A. Dabbish, and R. H. Sloan, “Investigations of Power Analysis Attacks on Smartcards,” in *Proceedings of the USENIX Workshop on Smartcard Technology*, May 1999, pp. 151–161.
- T. Horváth, R. H. Sloan, and G. Turán, “Learning Logic Programs by using the Product Homomorphism Method,” *Proceedings of the Tenth Annual Conference on Computational Learning Theory (COLT 97)*, pp. 10–20, July 1997.
- R. H. Sloan, and G. Turán, “Learning from Incomplete Boundary Queries using Split Graphs and Hypergraphs,” in *Proceedings of the Computational Learning Theory: Third European Conference (EuroCOLT '97)*, March 1997, pp. 38–50. Published as Springer-Verlag Lecture Notes in Artificial Intelligence 1208.
- T. Horváth, R. H. Sloan, and G. Turán, “Learning Logic Programs with Random Classification Noise,” *Proceedings of the 6th International Workshop on Inductive Logic Programming (ILP-96)*, S. Muggleton ed., published as Springer-Verlag Lecture Notes in Artificial Intelligence 1314 (Subseries of Lecture Notes in Computer Science), 1997, pp. 315–336.
- Y. Huang, O. Wolfson, and R. H. Sloan, “Divergence Caching in Client-Server Architectures,” *Proceedings of the Third International Conference on Parallel and Distributed Information Systems (PDIS '94)*, Sept. 1994, IEEE, pp. 131–139.
- U. Buy and R. H. Sloan, “Analysis of Real-Time Programs with Simple Time Petri Nets,” *Proceedings of the 1994 International Symposium on Software Testing and Analysis*, ACM, pp. 228–239.

- Publications:  
Competitive  
Conferences  
(cont.)**
- R. H. Sloan and G. Turán, “Learning with Queries but Incomplete Information,” *Proceedings of the ACM Conference on Computational Learning Theory (COLT 94)* July 1994, pages 237–245.
- U. Buy and R. H. Sloan, “A Petri-Net-Based Approach to Real-Time Program Analysis,” *Proceedings of the Seventh International Workshop on Software Specification and Design*, 1993, pages 56–60.
- D. Helmbold, R. H. Sloan, and M. Warmuth, “Learning Integer Lattices,” *Proceedings of the Third Computational Learning Theory Workshop*, 1990, pages 288–302.
- D. Helmbold, R. H. Sloan, and M. K. Warmuth, “Learning Nested Differences of Intersection-Closed Concept Classes,” *Proceedings of the Second Computational Learning Theory Workshop*, 1990, pages 41–56.
- R. L. Rivest and R. H. Sloan, “A New Model for Inductive Inference,” *Proceedings of the Second Conference on Theoretical Aspects of Reasoning about Knowledge*, 1988, pages 13–27.
- R. H. Sloan, “Types of Noise in Data for Concept Learning,” *Proceedings of The First Computational Learning Theory Workshop*, 1988, pages 91–96.
- R. L. Rivest and R. H. Sloan, “Learning Complicated Concepts Reliably and Usefully,” *Proceedings of AAAI-88*, August 1988, pages 635–639.
- S. Micali, C. Rackoff, and R. Sloan, “The Notion of Security for Probabilistic Cryptosystems,” *Advances in Cryptology—CRYPTO ’86*, pages 381–392.
- Publications:  
Unrefereed**
- J. Goldsmith and R. H. Sloan, “Write it Right: 1: The Very Basics,” *IEEE Professional Communication Society Newsletter*, Vol. 51, No. 8, 2007.
- J. Goldsmith and R. H. Sloan, “Write it Right: 2: Relevant Forms of Technical Writing,” *IEEE Professional Communication Society Newsletter*, Vol. 51, No. 10, 2007.
- J. Goldsmith and R. H. Sloan, “Write it Right: 3: Reviews, Coauthorship, and Citations,” *IEEE Professional Communication Society Newsletter*, Vol. 51, No. 11, 2007.
- J. Goldsmith and R. H. Sloan, “Write it Right: 4: Several Matters of Mechanics,” *IEEE Professional Communication Society Newsletter*, Vol. 52, No. 1, 2008.
- J. Goldsmith and R. H. Sloan, “Write it Right: 5: Considerations for Experimental Work,” *IEEE Professional Communication Society Newsletter*, Vol. 52, No. 2, 2008.
- R. H. Sloan, “The Joys of being an NSF Program Director,” *ACM SIGACT News*, 38(1): 7–8, 2007.

**Grants & Contracts Awarded**

*IGERT: IGERT: Electronic Security and Privacy. Technological, Human, Enterprise and Legal Perspectives.*

National Science Foundation, 2011–2016, one of five co-PIs, \$3,200,000.

*Privacy with Respect to Private Corporation in the 21st Century: Legal and Computer Security Issues*

National Science Foundation, 2009–2011, sole PI, \$100,000.

*Theoretical Foundations of Evolving Knowledge Bases*

National Science Foundation, 2009–2012, co-PI with PI Prof. Gy. Turán (of UIC Mathematics Dept.), \$500,000.

*S-STEM: UIC CS Scholars*

National Science Foundation, 2009–2014, PI with three co-PIs, \$598,000.

*Collaborative Research: Broadening Participation in Computing Alliance Planning Grant*

National Science Foundation, one of four UIC co-PIs in four-institution planning grant, 2009–2010 (18 months), \$400,000 total, \$60,000 UIC share.

*IGERT: Graduate Program in Computational Transportation Science*

National Science Foundation, 2006–2011, one of five co-PIs, \$3,097,976.

*Complexity of Knowledge Representation*

National Science Foundation, 2004–2007, PI with co-PI Prof. Gy. Turán (of UIC Mathematics Dept.), \$300,000.

*CRI: The SecLab at UIC*

National Science Foundation, 2006–2009, one of five co-PIs, \$159,715.

*A Multimedia Introduction to Computer Science: Two courses from one*

National Science Foundation Division of Undergraduate Education, July 2004–July 2006, \$99,269, PI (with co-PI Lecturer Pat Troy).

*Theory Revision and Related Problems in Learning Theory.*

National Science Foundation, 2001–2004, PI with co-PI Prof. Gy. Turán (of UIC Mathematics Dept.), approximately \$265,000.

*Theory of Computation Research*

National Science Foundation, 2000–2001, \$137,333, 100% Sloan.

Add-on for 2002 extension (National Science Foundation) \$102,545, 100% Sloan.

*Logic-based approaches to learning and knowledge discovery.*

National Science Foundation, 1998–2001, with Prof. Gy. Turán (of UIC Mathematics Dept.), \$253,001.

*Analyzing Real-time Properties of Concurrent Programs.*

National Science Foundation Award, 1994–96, with Assistant Professor Ugo Buy (of UIC EECS Dept.), \$90,000.

- Grants & Contracts Awarded (cont.)**
- A Software Engineering Course Sequence for Distributed and Real-Time Systems.*  
DISA award. 1994–1995, with Assistant Professor Ugo Buy (of UIC EECS Dept.), \$67,035.
- GTECH/UIC Consortium, Yr. 5.*  
GTECH. 1994–1995, with Associate Professor Tom Moher (of UIC EECS Dept.), \$250,000.
- Some Practical Issues in Computational Learning Theory.*  
National Science Foundation Research Initiation Award, 1991–1993. \$35,176.
- Service**
- Program evaluator for undergraduate computer science programs for Computing Accreditation Commission of ABET, 2001–present.
- Member Illinois Terrorism Task Force Cybersecurity Committee, 2010–present.
- IEEE Computer Society Board of Governors, 2006–2008 term.
- Director of Graduate Studies, UIC CS Dept., August 2004–July 2007.
- Member IEEE Computer Society Educational Activities Board 2001–present; chair committee on diversity 2001–2005; chair model curriculum committee 2006–2007.
- Member CSAB Board: Director: 2009–2010 Alternate Director, 2008.
- Member IEEE Computer Society Conferences and Tutorials Board, 2001–2005
- Testified before Illinois State Board of Professional Engineers on “Computer Science as an Engineering Discipline”, and issues relating to licensing of software engineers on March 24, 2005.
- Member of UIC Campus Research Board (awards internal research grants) 2002–2007; co-chair of Natural Sciences and Engineering Subcommittee 2005–2007.
- Program Director, National Science Foundation, Jan. 2001–Aug. 2004.
- Computer Society delegate and Secretary, ACM–IEEE Computer Society joint task force to write *Computing Curricula 2001: Computer Science* volume. Also chair of knowledge focus group on discrete mathematics. (See above under Computer Science Education.), 1997–2001.
- Computer Society delegate to ACM–IEEE Computer Society joint task force for 2008 revision of *Computing Curricula 2001*.
- Computer Society delegate, ACM–IEEE Computer Society joint task force to write *Computing Curricula 2004: Computer Engineering* volume.
- Computer Society delegate Member, ACM–IEEE Computer Society–AIS joint task force to create overview volume for various model computing curricula, 2003–2005.

- Service (cont.)**
- Chair, external review of computer science program at University of Massachusetts at Boston, Spring 2000.
- Local Arrangements Chair, Twelfth Annual Conference on Computational Learning Theory, 1998 (COLT 1998).
- Chair, Midwest Theory Day (regional conference), December, 1996, at UIC.
- Panel member and reviewer for both NSF and DARPA.
- Numerous UIC departmental, college, and university committees, etc.
- Editorial PC, Etc.**
- Editorial Board, *Electronic Proceedings in Theoretical Computer Science*, 2009–present.
- Editorial Board, *Information and Computation*, 2007–present.
- Editorial Board Member, *ACM Transactions on Computing Education* (previously titled *ACM Journal of Educational Resources in Computing (JERIC)*), 2003–2010.
- Editorial Board Member, *Machine Learning*, 2003–2006.
- Guest Editor, Special Issue of *Journal of Computer Systems and Sciences (JCSS)* on computational learning theory.
- Program Committees: IJCAI 2011 Doctoral Consortium Program Committee; SAT 2010; SAT 2009; AAI Workshop on Preferences, 2007; International Conference on Advanced Data Mining and Applications 2005; European Conference on Machine Learning (ECML), 2003, 2004, and 2005; Computational Learning Theory Conference, 2000, 2001, 2002.
- Program Committee chair, Twelfth International Symposium on AI and Mathematics (ISAIM 2012).
- Program Committee co-chair, Fifteenth Annual Conference on Computational Learning Theory (COLT 2002)
- Local arrangements committee, STOC 2004.
- Computational Learning Theory Conference (COLT) Steering Committee regular member, 1997–1998, and 1999–2002; Steering Committee Secretary, 2001–present.
- Articles refereed for numerous journals, including *Journal of the ACM*, *Information and Computation*, *SIAM Journal on Computing*, *Journal of Computing Systems and Software*, *Machine Learning*, *Journal of Artificial Intelligence Research*, *IEEE Software*, *IEEE Transactions on Computers*, and *IEEE Transactions on Systems, Man and Cybernetics*.

**Selected Awards**

IEEE Computer Society Golden Core Recognition “for long-standing service to the society,” 2007.

UIC Award for Excellence in Teaching, October 2006. (Obelisk and permanent \$5,000 increase in base salary).

IEEE Computer Society, Outstanding Contribution Award, “For the establishment of Computing Curricula 2005 for Computer Engineering,” 2006.

UIC Teaching Recognition Program, 2005, “recognizes the documented excellence of UIC faculty in their teaching activities.” (Certificate and permanent \$1,500 increase to base salary.)

**Computer Science Education**

Secretary and member, ACM–IEEE Computer Society joint Steering Committee to revise model undergraduate “Computing Curricula 1991” for 2001 version in computer science, 1997–2001.

Chair, Discrete Structures Knowledge Focus group for ACM–IEEE revision of model undergraduate “Computing Curricula 1991” to 2001 version.

Member IEEE Computer Society Education Board, and Chair of committee on diversity, 2001–2005.

Developed and taught interdisciplinary graduate seminar with Kent/IIT law school professor in summer of 2007, joint law school and computer science department class in Spring 2008 and Spring 2010: Privacy and Security in the Era of Computers and the Internet: Ethical, Legal, and Technological Issues; course page at URL <http://www.cs.uic.edu/bin/view/Sloan/PrivacyCourseSpring2010>.

Director of Undergraduate Students, UIC EECS Dept. (1,300 undergraduate majors), 1998–2000.

Included supervising rewriting multiple undergraduate majors for the split of the EECS dept. approved in fall 1999, effective summer 2001.

EECS dept. representative UIC College of Engineering Committee on ABET accreditation, Jan. 1999–2000.

EECS dept. representative to UIC College of Engineering Educational Policy Committee, 1999–2000.

Co-chair ad-hoc committee to revise UIC EECS Departments computer science major to enable its first CSAB (now known as ABET/CAC) accreditation, 1993–1994.

Director of Graduate Studies, UIC Computer Science Dept., August 2004–July 2008.

(See also items under service.)