

Radu Sion

Associate Professor, Computer Science, Stony Brook University
Director, Stony Brook Network Security and Applied Cryptography (**NSAC**) Laboratory
Director, CEWIT Cloud Computing Center (**C³**)

Education

Ph.D., *Computer Science*, Purdue University 2004, with M. Atallah and S. Prabhakar
M.Sc., *Computer Science*, "Politehnica" University of Bucharest 1999, with Irina Athanasiu
B.Sc., *Computer Science*, "Politehnica" University of Bucharest 1998, with Nicolae Tapus

Interests

Cyber-Security, Systems, Efficient, Large-Scale (Cloud) Computing

Awards

- National Science Foundation CAREER Award 2009-2014
- Stony Brook Nominee for the 2011 New York Academy of Sciences Blavatnik Award
- Stony Brook Computer Science Research Excellence Award 2010
- Xerox University Affairs Research Award 2008-2011
- Nominated for the 2004 ACM Dissertation Award by Purdue University
- Recipient of the 2004 CERIAS Diamond Award for Academic Excellence

Journal Publications

1. Y. Chen, R. Sion, "*Fighting Mallory the Insider: Strong Write Once Read Many Storage Assurances*", IEEE Transactions on Information Forensics & Security **TIFS** 2011
2. B. Carbunar, R. Sion, "*Write Once Read Many Oblivious RAM*", IEEE Transactions on Information Forensics & Security **TIFS**, June 2011
3. B. Carbunar, R. Sion, "*Toward Private Joins on Outsourced Data*", IEEE Transactions on Knowledge and Data Engineering **TKDE**, June 2011
4. P. Williams, R. Sion, M. Sotakova, "*Practical Oblivious Outsourced Storage*", Transactions on Information and System Security **ACM TISSEC**, volume 14, Issue 2, pages 1-28, September 2011
5. L. Shi, B. Carbunar, R. Sion, "*Conditional E-Payments with Transferability*", Elsevier Journal of Parallel and Distributed Computing **JPDC**, volume 71 Issue 1, January, 2011
6. J. Gao, R. Sion, S. Lederer, "*Collaborative Location Certification for Sensor Networks*", ACM Transactions on Sensor Networks **TOSN** volume 6, issue 4, 2010.
7. R. Hasan, R. Sion, M. Winslett, "*Preventing History Forgery with Secure Provenance*", ACM Transactions on Storage **TOS** volume 5, issue 4, pages 1-43, May 2009.
8. S. Bhatt, R. Sion, B. Carbunar, "*The Motorola Personal Mobile DRM Manager*", Elsevier Journal of Computers and Security, volume 28, issue 6, pages 327-340, September 2009
9. R. Sion, M. Atallah, S. Prabhakar, "*Rights Protection for Discrete Numeric Streams*", Transactions on Knowledge and Data Engineering **IEEE TKDE**, volume 18, issue 5, pages 699-

714, May 2006

10. R. Natarajan, R. Sion, C. Apte, I. Narang, "A Grid-based Approach for Enterprise-Scale Data Mining", *Future Generation Computer Systems*, volume 23, pages 48-54, January 2007
11. R. Sion, M. Atallah, S. Prabhakar, "Ownership Proofs for Categorical Data", *Transactions on Knowledge and Data Engineering IEEE TKDE*, volume 17, issue 7, pages 912-926, July 2005
12. R. Sion, M. Atallah, S. Prabhakar, "Protecting Rights for Relational Data using Watermarking", *Transactions on Knowledge and Data Engineering IEEE TKDE*, volume 16, issue 6, pages 1509-1525, June 2004

Peer-reviewed Chapters

1. R. Sion, J. Tatemura, "Runtime Web-Service Workflow Optimization", chapter in "New Frontiers in Information and Software as Services", Springer-Verlag LNBI 2011, pg. 112-131
2. R. Sion, "Data Outsourcing", in the Springer Encyclopedia of Cryptography and Security 2010
3. R. Sion, M. Winslett, "Regulatory Compliance in Information Systems", chapter in the Handbook of Financial Cryptography, Burt Rosenberg (editor), Chapman & Hall/CRC Cryptography and Network Security Series, ISBN 978-1-420-05981-6, June 2010
4. R. Hasan, M. Winslett, S. Mitra, W. Hsu, R. Sion, "Trustworthy Record Retention", invited/refereed chapter in the "Handbook of Database Security: Applications and Trends", M. Gertz and S. Jajodia (editors), Springer Verlag 2008, XIV, ISBN: 978-0-387-48532-4
5. R. Sion, "Secure Data Outsourcing", in the "Handbook of Database Security: Applications and Trends", M. Gertz and S. Jajodia (eds.), Springer Verlag 2008, XIV, ISBN: 978-0-387-48532-4
6. R. Sion, "Database Watermarking", invited/refereed chapter in the "Handbook of Database Security: Applications and Trends", M. Gertz and S. Jajodia (editors), Springer Verlag 2008, XIV, ISBN: 978-0-387-48532-4
7. R. Sion, "Digital Rights Management", in the Encyclopedia of Database Systems EDS 2007 (Ling Liu and Tamer Ozsu, Editors)
8. R. Sion, "Regulatory Compliance in Data Management", in the Encyclopedia of Database Systems EDS 2007 (Ling Liu and Tamer Ozsu, Editors)
9. R. Sion, "Rights Assessment for Relational Data", invited/refereed chapter in "Secure Data Management in Decentralized Systems", T. Yu and S. Jajodia (editors), Springer Verlag 2007, pages 427-457

Patent Disclosures

1. Multiple patent disclosures at Stony Brook.
2. "Method and Apparatus for tamper-proof Write-Once-Read-Many Computer Storage", US Pat. 12598726
3. "Method and Means for Co-scheduling Job Assignments and Data Replication in Wide Area Distributed Systems", US Pat. 11466778
4. "Method and system for rights assessment over digital data through watermarking", US Pat. 10852674, US Pat. 7,539,872

Refereed Conference and Workshop Papers

1. B. Carbutar, R. Sion, "*Private Geo-Social Networking*", ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems **ACM GIS 2011**, Chicago, IL, November 2011
2. Y. Chen, R. Sion, "*To Cloud or Not to cloud? Musings on Costs and Viability*", ACM Symposium on Cloud Computing **ACM SOCC 2011**, Cascais, Portugal, October 2011 (acceptance rate: 16.8%, 30/178)
3. H. Kang, Y. Chen, R. Sion, J. Wong, "*Enhancement of Xen's Scheduler for MapReduce Workloads*", ACM Symposium on High-Performance Parallel and Distributed Computing **ACM HPDC 2011**, San Jose, California, June 2011 (acceptance rate: 12.9%, 22/170)
4. S. Bajaj, R. Sion, "*TrustedDB: A Trusted Hardware - based Outsourced Database Engine*", Proceedings of the ACM Special Interest Group on Management of Data, **ACM SIGMOD 2011**, Athens, Greece, June 2011 (acceptance rate: 23%, 87/379)
5. M. Franz, P. Williams, B. Carbutar, S. Katzenbeisser, R. Sion, "*Oblivious Outsourced Storage with Delegation*", Financial Cryptography and Data Security Conference **FC 2011**, St. Lucia, February 2011 (full paper acceptance rate: 20%, 15/74)
6. Y. Chen, R. Sion, "*On Securing Untrusted Clouds with Cryptography*", ACM Workshop on Privacy in the Electronic Society **WPES 2010**, Chicago, Illinois, November 2010 (acceptance rate: 31%, 15/48)
7. B. Carbutar, R. Sion, "*Joining Privately on Outsourced Data*", VLDB Workshop on Secure Data Management **SDM 2010**
8. B. Carbutar, R. Sion, "*Regulatory Compliant Oblivious RAM*", Applied Cryptography and Network Security **ACNS 2010** (acceptance rate: 18.5%, 33/178)
9. M. Sotakova, H. Busch, S. Katzenbeisser, R. Sion, "*The PUF Promise (a short paper)*", Trust and Trustworthy Computing Conference **TRUST 2010**
10. P. McDaniel, K. Butler, S. McLaughlin, R. Sion, E. Zadok, M. Winslett, "*Towards a Secure and Efficient System for End-to-End Provenance*", USENIX Workshop on the Theory and Practice of Provenance **TAPP 2010**, in conjunction with the 8th USENIX Conference on File and Storage Technologies (FAST 2010)
11. R. Hasan, R. Sion, M. Winslett, "*The Case of the Fake Picasso: Preventing History Forgery with Secure Provenance*", USENIX Conference on File and Storage Technologies **FAST 2009**, pages 1-14, San Francisco, California, February 2009 (acceptance rate: 22.5%, 23/102)
12. P. Williams, R. Sion, D. Shasha, "*The Blind Stone Tablet: Outsourcing Durability*", Network and Distributed Systems Security Symposium **NDSS 2009**, San Diego, California, February 2009 (acceptance rate: 11%, 20/171)
13. Y. Chen, R. Sion, B. Carbutar, "*XPay: Practical anonymous payments for Tor routing and other networked services*", ACM Workshop on Privacy in the Electronic Society **WPES 2009**, Chicago, Illinois, November 2009 (full paper acceptance rate: 27%, 8/29)
14. R. Hasan, R. Sion, M. Winslett, "*Remembrance: The Unbearable Sentience of Being Digital*", Biennial Conference on Innovative Data Systems Research **CIDR 2009**, Asilomar, Monterey, California, January 2009 (acceptance rate: 27%, 19/70)
15. P. Williams, R. Sion, B. Carbutar, "*Building Castles out of Mud: Practical Access Pattern Privacy and Correctness on Untrusted Storage*", ACM Conference on Computer and

- Communications Security **CCS 2008**, pages 139-148, Alexandria, Virginia, October 2008 (acceptance rate: 18%, 51/281)
16. R. Sion, "*Strong WORM*", International Conference on Distributed Computing Systems **ICDCS 2008**, pages 69-86, Beijing, China, June 2008 (acceptance rate: 15%, 102/638)
 17. P. Williams, R. Sion, "*Usable PIR*", Network and Distributed Systems Security Symposium **NDSS 2008**, San Diego, California, February 2008 (acceptance rate: 16%, 20/121)
 18. R. Sion, S. Bajaj, B. Carbunar, S. Katzenbeisser, "*NS2: Networked Searchable Store with Privacy and Correctness*", The Very Large Databases Conference, **VLDB 2007**, pages 1342-1345, Vienna, Austria, September 2007 (demo)
 19. S. Lederer, J. Gao, R. Sion, "*On Certifying Location claims in Sensor Networks*", Applied Cryptography and Network Security **ACNS 2007**, Zhuhai, China, June 2007 (industrial track, acceptance rate: 27%, 60/220)
 20. L. Shi, B. Carbunar, R. Sion, "*Conditional E-Cash*", Financial Cryptography and Data Security Conference **FC 2007**, pages 15-28, Scarborough, Trinidad and Tobago, February 2007 (acceptance rate: 18%, 16/85)
 21. S. Bhatt, B. Carbunar, R. Sion, V. Vasudevan, "*The Motorola Personal Digital Rights Manager*", Financial Cryptography and Data Security Conference (demo) **FC 2007**, pages 246-248, , Scarborough, Trinidad and Tobago, February 2007 (acceptance rate: 18%, 16/85)
 22. R. Sion, B. Carbunar, "*On the Computational Practicality of Private Information Retrieval*", Network and Distributed Systems Security Symposium **NDSS 2007**, San Diego, California, February 2007 (acceptance rate: 15%, 18/125)
 23. R. Hasan, R. Sion, M. Winslett, "*Introducing Secure Provenance: Problems and Challenges*", International Workshop on Storage Security and Survivability **StorageSS 2007**, in conjunction with CCS, pages 13-18, Alexandria, Virginia, October 2007
 24. R. Hasan, M. Winslett, R. Sion, "*Requirements of Secure Storage Systems for Health-care Records*", International Workshop on Secure Data Management **SDM 2007**, in conjunction with VLDB, pages 174-180, Vienna, Austria, September 2007
 25. B. Carbunar, R. Sion, "*Uncheatable Reputation for Distributed Computation Markets*", Financial Cryptography and Data Security Conference **FC 2006**, pages 96-110, Anguilla, British West Indies, February 2006 (acceptance rate: 22%)
 26. R. Sion, R. Natarajan, I. Narang, T. Phan, "*XG: A Grid-Enabled Query Processing Engine*", International Conference on Extending Database Technology **EDBT 2006**, pages 1115-1120, Munich, Germany, March 2006 (acceptance rate: 34%, 20/58), also in **Lecture Notes in Computer Sciences** 3896 Springer 2006
 27. R. Sion, "*Query Execution Assurance for Outsourced Databases*", The Very Large Databases Conference, **VLDB 2005**, pages 601-612, Trondheim, Norway, August 2005 (acceptance rate: 16%, 32/195)
 28. T. Phan, K. Ranganathan, R. Sion, "*Evolving to the Perfect Schedule: Co-scheduling Job Assignments and Data Replication in Wide-Area Systems Using a Genetic Algorithm*", Workshop on Job Scheduling Strategies for Parallel Processing **JSSPP 2005**, pages 173-193, in Conjunction with the ACM International Conference on Supercomputing **ICS 2005**, Cambridge, Massachusetts, June 2005
 29. R. Sion, R. Natarajan, I. Narang, W. Li, T. Phan, "*XG: A Data-driven Computation Grid for Enterprise-Scale Mining*", International Conference on Database and Expert Systems

- Applications **DEXA 2005**, pages 828-837, Linz, Austria, September 2005 (acceptance rate: 23%, 92/390)
30. R. Sion, J. Tatemura, "*Dynamic Stochastic Models for Workflow Response Optimization*", IEEE International Conference on Web Services (Industry Track) **ICWS 2005**, pages 657-664, Orlando, Florida, July 2005 (acceptance rate: 18%, 37/199)
 31. R. Sion, M. Atallah, S. Prabhakar, "*Resilient Rights Proofs for Sensor Streams*", Proceedings of the Conference on Very Large Databases **VLDB 2004**, pages 732-743, Toronto, Canada, August 2004 (acceptance rate: 16%, 81/504)
 32. R. Sion, "*Proving Ownership over Categorical Data*", Proceedings of the IEEE International Conference on Data Engineering **IEEE ICDE 2004**, pages 584-596, Boston, Massachusetts, March 2004 (acceptance rate: 14%, 63/441)
 33. Y. Tu, S. Prabhakar, A. Elmagarmid, R. Sion, "*QuaSAQ: An Approach to Enabling End-to-End QoS for Multimedia Databases*", International Conference on Extending Database Technology **EDBT 2004**, pages 694-711, Heraklion, Crete, Greece, March 2004 (acceptance rate: 14%, 42/294)
 34. R. Sion, M. Atallah, S. Prabhakar, "*wmdb.*: Rights Protection for Numeric Relational Data*", Proceedings of the IEEE Intl. Conference on Data Engineering (demo) **IEEE ICDE 2004**, pages 863-864, Boston, Massachusetts, March 2004
 35. R. Natarajan, R. Sion, C. Apte, I. Narang, "*A Grid Based Approach for Enterprise-Scale Data Mining*", Data Mining and The Grid Workshop (**DM-Grid**), at the IEEE International Conference on Data Mining **ICDM 2004**, Brighton, United Kingdom, November 2004
 36. R. Sion, "*Rights Protection beyond Multimedia*", Proceedings of the **EDBT/ICDE** PhD Workshop, pp. 109-118, Boston, March 2004 (acceptance rate: 25.5%, 22/86)
 37. R. Sion, M. Atallah, "*Attacking Digital Watermarks*", Proceedings of the Symposium on Electronic Imaging (Security, Steganography, and Watermarking of Multimedia Contents) **SPIE 2004**, pages 848-858, San Jose, California, January 2004
 38. R. Sion, M. Atallah, S. Prabhakar, "*On-the-fly Intrusion Detection for Web Portals*", IEEE Coding and Computing, **ITCC 2003**, pages 325-330, Las Vegas, Nevada, April 2003, **IEEE Computer Society Press**
 39. R. Sion, M. Atallah, S. Prabhakar, "*Rights Protection for Relational Data*", Proceedings of the ACM Special Interest Group on Management of Data, **ACM SIGMOD 2003**, pages 98-109, San Diego, California, May 2003 (acceptance rate: 15%, 52/342)
 40. R. Sion, M. Atallah, S. Prabhakar, "*Resilient Information Hiding for Abstract Semi-Structures*", Intl. Workshop on Digital Watermarking **IWDW 2003**, pages 143-158, Seoul, Korea, October 2003, and also in **Lecture Notes in Computer Sciences (LNCS)** 2939 Springer 2004
 41. R. Sion, M. Atallah, S. Prabhakar, "*Power: A Metric for Evaluating Watermarking Algorithms*", IEEE Coding and Computing, **ITCC 2002**, Las Vegas, Nevada, April 2002, **IEEE Computer Society Press** PR01506, pp. 95-99
 42. W. Li, W. Hsiung, D.V. Kalashnikov, R. Sion, O. Po, D. Agrawal, K. S. Candan, "*Issues and Evaluations of Caching Solutions for Web Application Acceleration*", Proceedings of the Conference on Very Large Databases **VLDB 2002**, pages 1019-1030, Hong Kong, China, August 2002 (acceptance rate: 17%). NEC CachePortal won the **Best of CeBIT award** in the **Enterprise Platform Software** category in May 2004.
 43. R. Sion, M. Atallah, S. Prabhakar, "*On Watermarking Numeric Sets*", Intl. Workshop on

Digital Watermarking **IWDW 2002**, Seoul, Korea, November 2002, and also in **Lecture Notes in Computer Science (LNCS)** 2613, pages 130-146, Springer-Verlag 2003

44. M. Atallah, V. Raskin, C. F. Hempelmann, M. Karahan, R. Sion, K. E. Triezenberg, U. Topkara, "*Natural Language Watermarking and Tamperproofing*", Information Hiding Workshop **IH 2002**, Noordwijkerhout, The Netherlands, October 2002, **Lecture Notes in Computer Science (LNCS)** 2578 Springer-Verlag 2003, pages 196-212, ISBN 3-540-00421-1 (acceptance rate: 34%, 27/78)
45. L. Boloni, K. Jun, D. Marinescu, K. Palacz, R. Sion, "*The BOND Agent System and Applications*", in **ASA/MA 2000**, Zurich, Switzerland, September 2000, and in "*Agent Systems, Mobile Agents, and Applications*", (D. Kotz and F. Mattern, editors), **Lecture Notes in Computer Science (LNCS)** 1882, pages 99-112, Springer-Verlag (acceptance rate: 18%, 20/107)

Books and Translations

1. I. Athanasiu, D. Raiciu, R. Sion, I. Mocanu, "*Formal Languages. An Applications Guide*", Matrix ROM Publishing, ISBN 973-685-407-8
2. A. S. Tanenbaum, "*Computer Systems Structure, fifth Edition, 1999*", invited to participate in the first time English to Romanian translation, Agora Press, 1999
3. R. Sion, D. Lada, "*Introduction to the Internet*", course materials at the Romanian Chamber of Commerce and Industry, Business Information Center, 1st Edition 1995, reprinted 1996

Selected Invited Papers, Refereed Posters and Panels

1. R. Nithyanand, R. Sion, J. Solis, "*Making the case for intrinsic Personal Physical Unclonable Functions (IP-PUFs)*", ACM Conference on Computer and Communications Security **CCS 2011**, Chicago, Illinois, October 2011
2. "*Security issues in Clouds for Big Pharma*", invited talk in panel at the Licensing Executives Society **LES Pharma Plenary**, New York City, May 2011
3. G. Alonso, L. Haas, H. V. Jagadish, D. Maier, T. Ozsu, R. Sion, M. Winslett, "Time for Our Field to Grow Up", panel at the International Conference on Very Large Databases **VLDB 2010**, Singapore, September 2010
4. R. Hasan, R. Sion, M. Winslett, "*SPROV 2.0: A Highly-Configurable Platform-Independent Library for Secure Provenance*", ACM Conference on Computer and Communications Security **CCS 2009**, Chicago, Illinois, November 2009
5. P. Williams, M. Sotakova, R. Sion, "*A Little Storage Goes a Long Way: Accelerating Private Information Retrieval*", ACM Conference on Computer and Communications Security **CCS 2009**, Chicago, Illinois, November 2009
6. R. Agnihotri, R. Sion, "*cDB: SCPU-enabled Secure SQL Engine*", ACM Conference on Computer and Communications Security **CCS 2009**, Chicago, Illinois, November 2009
7. Y. Chen, R. Sion, "*The Dollar Cost of Security*", ACM Conference on Computer and Communications Security **CCS 2009**, Chicago, Illinois, November 2009
8. P. Williams, R. Devgan, R. Sion, "*Outsourcing Durability*", ACM Conference on Computer and Communications Security **CCS 2009**, Chicago, Illinois, November 2009
9. R. Sion, P. A. Jadhav, "*MobileEMR: Mobile Electronic Medical Records*", ACM Conference on

- Computer and Communications Security **CCS 2009**, Chicago, Illinois, November 2009
10. R. Sion, A. Venkateshan, "*Deploying Trusted Hardware to Secure Urban Sensing*", ACM Conference on Computer and Communications Security **CCS 2009**, Chicago, Illinois, November 2009
 11. R. Hasan, R. Sion, M. Winslett, "*SPROV: A Secure Provenance Library*", **USENIX Annual Technical Conference 2009**, San Diego, California, June 2009
 12. S. Lederer, J. Gao, R. Sion, "*Collaborative Location Certification for Sensor Networks*", invited paper at the **IEEE Sarnoff Symposium 2008**, Princeton, New Jersey, April 2008
 13. Panel chair for the "*Cellular Network Security*", with Ron Buskey, John Larson, Simon Mizikovsky, Hao Chen, Thomas La Porta, Patrick Traynor at **USENIX Security 2007**, Boston, Massachusetts, August 2007
 14. R. Sion, "*Private and Correct Networked Secure Searchable Storage*", **USENIX Security 2007**, Boston, Massachusetts, August 2007
 15. R. Sion (panel chair), W. Gasarch, A. Kiayias, G. di Crescenzo, "*Achieving Practical Private Information Retrieval*", panel at **SecureComm 2006**, Baltimore, Maryland, August 2006
 16. S. Lederer, J. Gao, R. Sion, "*Collaborative Location Certification for Sensor Nets*", SecureComm 2006, Baltimore, Maryland, August 2006
 17. "*NS3: Networked Secure Searchable Storage*", USENIX Security 2006, Vancouver, British Columbia, August 2006
 18. "*Personal DRM Systems in mobile environments*", Symposium on Security & Privacy 2006, Oakland, California, May 2006
 19. "*Mechanisms for Secure Reputation*", IEEE Symposium on Security & Privacy 2005, Oakland, California, May 2005
 20. "*Ensuring Fair Trust in Reputation Based Systems*", USENIX Security 2004, San Diego, California, August 2004
 21. M. Atallah, S. Prabhakar, K. Frikken, R. Sion, "*Digital Rights Protection*", invited paper for the **IEEE Data Engineering** Bulletin, pages 19-25, 2004
 22. "*Provable Access Accounting for Content Distribution Networks*", ACSAC 2003, Las Vegas, Nevada, December 2003
 23. "*Intrusion Detection for Networked Hyper-Data*", IFIP Communications and Multimedia 2002, Portoroz, Slovenia, September 2002
 24. R. Sion, L. Boloni, "*MicroServers*", Congress on Evolutionary Computation, Session on Evolutionary Intelligent Agents, **CEC 2000, IEEE Computer Society Press**, San Diego, California, May 2000
 25. "*Network Distribution, Java and Multi-platform Networking*", SunSITE iNET Workshop 1997, Bucharest
 26. "*Exceptions and Networking Support in Java*", The First Java Workshop, P.U.B. Press 1996

Edited Conference Proceedings

1. R. Sion (Ed.), "*Proceedings of the 2012 Network and Distributed Systems Symposium NDSS*", San Diego, California, February 2012
2. A. Perrig, R. Sion (Eds.), "*Proceedings of the 2010 ACM Workshop on Cloud Computing Security*", Chicago, Illinois, USA November 2010, ACM, ISBN:978-1-4503-0089-6

3. R. Sion (Ed.), *"Proceedings of the 2010 Financial Cryptography and Data Security Conference"*, Lecture Notes in Computer Science, Subseries: Security and Cryptology, Vol. 6052, 2010, XII, 432 p., ISBN: 978-3-642-14576-6
4. R. Sion, R. Curtmola, S. Dietrich, A. Kiayias, J.M. Miret, K. Sako, F. Sebé (Eds.) , *"Workshops of the 2010 Financial Cryptography and Data Security Conference"*, Lecture Notes in Computer Science, Subseries: Security and Cryptology, Vol. 6054, 2010, X, 257 p., ISBN: 978-3-642-14991-7
5. R. Sion, D. Song (Eds.), *"Proceedings of the 2009 ACM Workshop on Cloud Computing Security"*, Chicago, Illinois, USA November 13, 2009, ACM, ISBN 978-1-60558-784-4

Theses

1. R. Sion, *"Rights Assessment for Discrete Digital Data"*, PhD dissertation in Computer Science at Purdue University, August 2004 (nominated for ACM Dissertation Award)
2. R. Sion, *"Talking Objects"*, MS thesis in Computer Science at the "Politehnica" University of Bucharest, May 1999

Magazine Publications and Interviews

1. *"The Cyber Security Industrial Complex"*, interview in **MIT Technology Review**, Dec. 6, 2011
2. *"Security Researchers Rain on Amazon's Cloud"*, interview in **MIT Technology Review**, Oct. 28, 2011
3. Md. B. Uddin, B. He, R. Sion, *"Cloud Performance Benchmark Series: Amazon Elastic Load Balancer (ELB) Benchmark"*, Cloud Commons Online, April 2011
4. S. Sanghrajka, R. Sion, *"Cloud Performance Benchmark Series: Network Performance – Rackspace.com"*, Cloud Commons Online, March 2011
5. S. Sanghrajka, N. Mahajan, R. Sion, *"Cloud Performance Benchmark Series: Network Performance - Amazon EC2"*, Cloud Commons Online, February 2011
6. K. Sarda, S. Sanghrajka, R. Sion, *"Cloud Performance Benchmark Series: Amazon EC2 vs. Rackspace.com CPU Speed Benchmark"*, Cloud Commons Online, January 2011
7. K. Sarda, S. Sanghrajka, R. Sion, *"Cloud Performance Benchmark Series: Amazon EC2 CPU Speed Benchmark"*, Cloud Commons Online, November 2010
8. S. J. Nadgowda, R. Sion, *"Cloud Performance Benchmark Series: Amazon EBS, S3, and EC2 Instance Local Storage"*, Cloud Commons Online, October 2010
9. Md. B. Uddin, B. He, R. Sion, *"Cloud Performance Benchmark Series: Amazon RDS TPC-C Benchmark"*, Cloud Commons Online, August 2010
10. Md. B. Uddin, B. He, R. Sion, *"Cloud Performance Benchmark Series: Amazon EC2 Web Serving"*, Cloud Commons Online, July 2010
11. *"Security in the Ether: Information technology's next grand challenge will be to secure the cloud--and prove we can trust it"*, interview in **MIT Technology Review**, Dec. 24, 2009
12. *"Self-Policing Cloud Computing"*, interview in **MIT Technology Review**, Nov. 20, 2009
13. *"Searching an Encrypted Cloud"*, interview in **MIT Technology Review**, Nov. 13, 2009
14. *"Vulnerability in Amazon's Cloud"*, interview in **MIT Technology Review**, Oct. 23 2009
15. R. Hasan, R. Sion, M. Winslett, *"Secure Provenance: Protecting the Genealogy of Bits"*, ;login: The USENIX Magazine, June 2009

16. Kate Greene, "Forensic Watermarks in Mobile Devices: Researchers are working on a new watermarking scheme to deter people from illegally sharing videos", **MIT Technology Review**, December 11, 2006
17. "Electronic Commerce: JavaCard", *PC-Report*, Sep. 1999
18. "The JINI vision", *BYTE Romania*, Nov. 1998
19. "JINI, a new beginning", *PC-Report*, Oct. 1998
20. "Internet Serving", *PC-Report*, Sep. 1998
21. "Modern Portable Software Design", *PC-Report*, Aug. 1998
22. "Introduction to VRML 2.0", *PC-Report*, May 1998

Invited Talks and Seminars (conference talks and tutorials not included)

1. "Cloud Computing Security and Economics", invited keynote in plenary of Dagstuhl "Secure Architectures in the Cloud" and "Secure Cloud Computing" invitational workshops, December 2011
2. "The economics of Cloud Computing. Why a Brooklyn Latte buys a million unforgeable signatures", talk at the 2011 **Microsoft Research Faculty Summit**, Seattle, July 2011
3. "Clouds and Cryptography", talk at the European Network of Excellence in Cryptology (ECRYPT) Workshop on **Cryptography and Security in Clouds**, Zurich, March 2011
4. "To Cloud or not To", **Columbia University CS**, January 2011
5. "Cyber-Security Research in Clouds", **British Consulate General, New York**, Nov. 2010
6. "A Small Latte or a PetaCycle? You Decide. The Economics of Cloud Computing OR why and when deploying to clouds is not a good idea", **U. of British Columbia**, November 2010
7. "Trusted Hardware", **Technical University Darmstadt CS**, Germany, May 2010
8. "Trusting Hardware for Fun and Profit", North East Security&Privacy Day, December 2009
9. "Cloud Computing", **Politehnica U. of Bucharest CS**, November 2009
10. "Security vs. Costs and Energy in Clouds", **CMU CyLab**, October 2009
11. "Clouds at the crossroads of Costs, Energy and Security", **UC Berkeley**, September 2009
12. "Let's Talk About Clouds", **TU Berlin CS**, June 2009
13. "Regulatory Compliance in Information Systems", **INRIA Paris, Rocquencourt**, Sep. 2008
14. "Trusted Hardware in Systems", **Universita di Roma La Sapienza, CS**, May 2008
15. "On Trusted Hardware and Privacy Systems", **Brooklyn Polytech CS**, March 2008
16. "Towards Regulatory Compliance in Data Management", **UIUC CS**, October 2007
17. "Towards Regulatory Compliance in Data Management", **UC Berkeley CS**, October 2007
18. "Towards Regulatory Compliance in Data Management", **U. Arizona**, October 2007
19. "Towards Regulatory Compliance in Data Management", **BAE Systems**, July 2007
20. "Regulatory Compliance in Data Management", **Hong Kong Polytechnic CS**, June 2007
21. "Conditional Electronic Payments with Transferability", **Stanford CS**, April 2007
22. "Enterprise DRM Infrastructure for Cellular Contexts", **Motorola Labs**, April 2007
23. "Conditional Electronic Payments with Transferability", **Purdue CS**, April 2007
24. "Regulatory Compliance in Data Management", **IBM Research (Almaden)**, April 2007
25. "Forensic Watermarks in Mobile Devices", **MIT Technology Review**, December 2006
26. "On the Practicality of Private Information Retrieval", **Johns Hopkins CS**, December 2006
27. "Cyber Security Research at Stony Brook", **Politehnica U. of Bucharest CS**, June 2006

28. "Secure Data Outsourcing: Search and Query", **IBM Research (Watson)**, May 2005
29. "Rights Protection for Digital Data", **U. of Florida CS**, Gainesville, February 2004
30. "Rights Protection for Digital Data", **Ohio State CS**, February 2004
31. "Rights Protection beyond Multimedia", CS, **Wisconsin**, Madison, February 2004
32. "Rights Protection beyond Multimedia", CS, **Illinois at Urbana-Champaign**, January 2004
33. "Watermarking Data Aggregates", University of **Nevada**, Las Vegas, April 2002
34. "Jet Virtual Medium", special prize of the Ministry of Research, **BINARY98**, October 1998
35. "Talking Objects", **ACM Summer School on Software Engineering**, May 1998

Invited Tutorials

1. R. Sion, "A Quick Intro to Trusted Hardware", invited tutorial at the IEEE Symposium on Security and Privacy **S&P 2009**, Berkeley, California, May 2009
2. R. Sion, "Trusted Hardware", invited tutorial at the ACM Conference on Computer and Communications Security **CCS 2008**, Alexandria, Virginia, October 2008
3. R. Sion, S. Smith, "Understanding and Deploying Trusted Hardware", invited tutorial at the **USENIX Security Symposium 2008**, San Jose, California, July 2008
4. R. Sion, M. Winslett, "Regulatory Compliance in Data Management", invited tutorial at the 33rd International Conference on Very Large Databases **VLDB 2007**, pages 1433-1434, Vienna, Austria, September 2007
5. R. Sion, "Secure Data Outsourcing", invited tutorial at the 33rd International Conference on Very Large Databases **VLDB 2007**, pages 1431-1432, Vienna, Austria, September 2007
6. R. Sion, M. Winslett, "Regulatory Compliance in Data Management", invited tutorial at the ACM Conference on Computer and Communications Security **CCS 2007**, Alexandria, Virginia, USA, October 2007
7. R. Sion, "Secure Data Outsourcing", invited tutorial at the 13th International Conference on Management of Data **COMAD 2006**, **IIT Delhi**, New Delhi, December 2006
8. R. Sion, "Database Watermarking", invited tutorial at the 11th International Conference on Database Systems for Advanced Applications **DASFAA 2006**, Singapore, April 2006

Selected Projects

- **Green Security:** Cost and Energy-Aware Computation and Security Primitives (NSF)
- **Secure Provenance in Clouds and High Performance Computing Systems** (NSF)
- **Trusted Hardware Lab:** a central academic expertise and research knowledge repository on secure hardware, a nation-wide first of its kind. Provides direct hands-on or networked access to remote or visiting research community members. (NSF)
- **Privacy for Outsourcing:** robust, efficient and scalable content-search mechanisms for networked data access with data confidentiality, search pattern privacy and retrieval correctness. (NSF)
- **cDB:** Regulatory compliant data management (UIUC, Arizona, NSF)
- **SecureWORM:** Strong Regulatory-Compliant Data Management: regulatory-compliant data management suite with guaranteed data retention, secure deletion, quick lookup and compliant migration. (UIUC, IBM Research, NSF)
- **Personal DRM in Cellular Contexts:** DRM infrastructure for highly mobile environments and

hardware. Users are able to assert and control dissemination rights of produced content as it traverses remote, possibly un-trusted consumer environments. (Motorola)

- **Sensor Networks Security:** (i) Secure Location Certification – location claims assurances for data flows in hostile environments, (ii) Stealthy Routing – mechanisms for routing with destination privacy, (iii) Trusted Hardware – TPMs on sensors.
- **Secure Data Outsourcing:** assurances of query execution, correctness and completeness for outsourced data frameworks. (NSF, IBM Research)
- **Secure Provenance Awareness:** security mechanisms for provenance tagging of inter and intra-platform information flows. (UIUC,NSF)
- **Relational Data Watermarking:** Information Hiding based digital rights protection framework for relational data. (Purdue)
- **Micro-payments, conditional E-Cash:** Electronic cash instruments allowing (micro) payments conditional on outcomes of future events. Applications: Wall-Street, the Next Generation Internet.

Funding (total: **\$4.9m**, own share: **\$2.3m**, not including university matches)

1. *Gift Grant* for the NSAC Lab (Northrop Grumman Corporation, \$5k, 2011)
2. *Microsoft Gift Grant* for the Cloud Computing Security Workshop (\$5,000, 2011)
3. “I/UCRC CGI: Center for Dynamic Data Analytics (CDDA)”, (NSF IIP 1069147, Co-PI with 11 others, \$55k, 2011-14)
4. “*Long Island Smart Energy Corridor*” (DOE, subcontract from the Long Island Power Authority, approx. \$12.5m, Stony Brook share: \$1.7m, 2010 onwards, co-PI with 15+ others)
5. “*Cloud Benchmarking*” (CA Technologies, \$85k, 2010-2011)
6. “*Cloud Computing Security*” (Northrop Grumman Corporation, \$10k, 2010 onwards)
7. *Microsoft Gift Grant* for the Cloud Computing Security Workshop (\$5,000, 2010)
8. *Gift Grant* for the NSAC Lab (CA Technologies, \$124k, 2010)
9. *Gift Grant* for the NSAC Lab (Northrop Grumman Corporation, \$5k, 2010)
10. *NSF CAREER: Practical Privacy for Outsourcing Systems* (NSF, \$400k, 2009-14)
11. *Supplement for Cyber-Security Collaboration with TU Darmstadt* (NSF IIS, \$39k, 2009-12)
12. *NSF HEC: Secure Provenance in High End Computing Systems* (NSF CCF 0937833, \$1m, lead-PI for Stony Brook, own share: \$290k, collaboration with Marianne Winslett at UIUC and Patrick McDaniel at PSU, Erez Zadok at SBU, 2009-12)
13. *Microsoft Gift Grant* for the Cloud Computing Security Workshop (\$5,000, 2009)
14. *III-COR Medium: Collaborative Research: Achieving Compliant Databases* (NSF IIS 0803197, \$870k, lead PI for Stony Brook: \$250k, in collaboration with Marianne Winslett at UIUC and Rick Snodgrass at Arizona, 2008-12)
15. *Regulatory Compliant Document Management* (NYS Brooklyn Polytech CATT, \$10k, 2008)
16. *Regulatory Compliant Document Management* (Xerox research gift, \$60k, 2008-11)
17. *Acquisition of a Trusted Hardware Infrastructure for Secure Data Management* (NSF CRI CNS 0708025, sole PI, \$200k, 2007-10)
18. *SecureWORM: Strong Regulatory-Compliant Storage* (NSF Cyber Trust CNS 0716608, \$250/\$500k, lead PI for Stony Brook, collaboration with M. Winslett at UIUC, 2007-10)
19. *Center for Information Protection: A Multi-University Industry/University Collaborative*

- Research Center* (NSF IIP 0733935, \$275k, Co-PI with R. Sekar, E. Zadok, S. Stoller, and T. Chiueh, 2007-10)
20. *NS3: Networked Secure Searchable Storage* (NSF CNS 0627554, \$300k, lead PI with E. Zadok, 2006-09)
 21. *Personal DRM and Content Security in Mobile Frameworks* (Motorola Labs, \$35k, 2006)
 22. *A Plan for Developing an Industry/University Collaborative Research Center on Cyber Security* (NSF IUCRC EEC 0532030, \$10k, Co-PI with R. Sekar, E. Zadok, S. Stoller, T. Chiueh, 2005-06)
 23. *Secure Data Aggregation in Wireless Sensor Networks* (CEWIT Award, \$52k, Co-PI with J. Gao, 2006-07)
 24. *Cyber-Security: Tools and Techniques for Fail-Safe Systems* (NYSTAR, \$202k, Co-PI with R. Sekar, T. Chiueh, S. Stoller, C.R. Ramakrishnan, and E. Zadok, 2005-06)

Research Community Service

Editorships

1. Associate Editor, ACM Transactions on Information and System Security (**TISSEC**), 2010-

Chairs

2. Network and Distributed Systems Security Symposium **NDSS 2012**, Program Chair
3. Cloud Computing Security Workshop (**CCSW**) at **CCS 2011**, Steering Group Chair
4. Network and Distributed Systems Security Symposium **NDSS 2011**, Session Chair
5. Cloud Computing Security Workshop (**CCSW**) at **CCS 2010**, Steering and Program Co-Chair
6. **Financial Crypto 2010**, Program Chair
7. **ACM WPES 2009** Workshop at CCS, Session Chair
8. **IEEE Security and Privacy Symposium 2009**, Session Chair
9. **ACM CCS 2009** Computer and Communications Security Conference, Session Chair
10. Cloud Computing Security Workshop (**CCSW**) at **CCS 2009**, Steering and Program Chair
11. **Financial Crypto 2009**, PC Member, Session Chair
12. **Financial Crypto 2008**, General Chair
13. **USENIX Security 2007**, Poster Chair
14. **North East DB/IR Day Fall 2007** at Stony Brook, Chair
15. **Financial Crypto 2007**, PC Member, Session Chair
16. **ACNS 2007** Intl. Conf. on Applied Cryptography and Network Security, Session Chair
17. **USENIX Security 2006**, Poster Chair
18. **SKM 2006** Secure Knowledge Management Workshop, Publicity Chair, Session Chair

Program Committee Memberships

19. Very Large Databases Conference (**VLDB/PVLDB**) **2013**, PC Member/Editor
20. **ACM CCS 2012** Computer and Communications Security Conference, PC Member
21. **ACNS 2012** Intl. Conf. on Applied Cryptography and Network Security, PC Member
22. **ACM SIGMOD 2012**, Intl. Conf. of the SIG on Management of Data, PC Member
23. IEEE Security and Privacy Symposium (**Oakland**) **2012**, PC Member

24. Intl. Conf. on Trends in Theory and Practice of CS (**SOFSEM**) 2012 (Security), PC Member
25. Intl. World Wide Web Conference (**WWW**) 2011, PC Member
26. **ACM SIGMOD 2011**, Intl. Conf. of the SIG on Management of Data, PC Member
27. IEEE Security and Privacy Symposium (**Oakland**) 2011, PC Member
28. Network and Distributed System Security Symposium **NDSS 2011**, PC Member
29. IEEE Security and Privacy Symposium (**Oakland**) 2010, PC Member
30. **IEEE ICDE 2010** Intl. Conf. on Data Engineering, PC Member
31. **IEEE ICDCS 2010** Intl. Conf. on Distributed Computing Systems, PC Member
32. Network and Distributed System Security Symposium **NDSS 2010**, PC Member
33. **ACNS 2010** Intl. Conf. on Applied Cryptography and Network Security, PC Member
34. USENIX Workshop on Green/Sustainable IT **Cool-IT 2010**, PC Member
35. International Conference on Trusted Computing **TRUST 2010**, PC Member
36. **ISC 2010** Information Security Conference, PC Member
37. **STC 2010** Workshop on Scalable Trusted Computing, PC Member
38. **ACM CCS 2009** Computer and Communications Security Conference, PC Member
39. **IEEE Security and Privacy Symposium 2009**, PC Member
40. **ACM SIGMOD 2009**, Intl. Conf. of the SIG on Management of Data, PC Member
41. **Financial Crypto 2009**, PC Member, Session Chair
42. **ACM WPES 2009** Workshop at CCS, PC Member
43. **ACM CCS 2008** Computer and Communications Security Conference, PC Member
44. **ACM SIGMOD 2008**, Intl. Conf. of the SIG on Management of Data, PC Member
45. **ICISS 2008**, Intl. Conf. on Information Systems Security, PC Member
46. **ACM DRM 2008** Workshop at CCS, PC Member
47. **ACM WPES 2008** Workshop at CCS, PC Member
48. **EDBT 2008 PhD Workshop**, PC Member
49. **ACM CCS 2007** Computer and Communications Security Conference, PC Member
50. **IEEE ICDE 2007** Intl. Conf. on Data Engineering (Security), PC Member
51. **IEEE ICDCS 2007** Intl. Conf. on Distributed Computing Systems (Security), PC Member
52. **WISA 2007** Workshop on Information Security Applications, PC Member
53. **Financial Crypto 2007**, PC Member, Session Chair
54. **ACM StorageSS** Storage Security and Survivability Workshop **2006** (at CCS), PC Member
55. **WISA 2006** Workshop on Information Security Applications, PC Member
56. **NPsec 2006** Workshop on Secure Network Protocols, PC Member
57. **WIDM 2006** Workshop on Web Information and Data Management at CIKM, PC Member

Miscellaneous

58. **Invitational:** “*Privacy Oriented Cryptography*” Dagstuhl Seminar, September 2012
59. **Invitational:** “*Security and Dependability for Federated Cloud Platforms*” Dagstuhl Seminar, July 2012
60. **Invitational:** “*NSF Vision Workshop on Security for Cloud Computing*”, March 2012
61. **Invitational:** “*Secure Cloud Computing*” Dagstuhl Seminar, December 2011
62. **Invitational:** “*Privacy and Security in Smart Energy Grids*” Dagstuhl Seminar, December 2011
63. **Invitational:** “*Secure Architectures in the Cloud*” Dagstuhl Seminar, December 2011
64. **Invitational:** “*Information Management in the Cloud*”, Dagstuhl Seminar, August 2011

65. Reviewer for the Florida State Institute for the Commercialization of Public Research 2010
66. NSF: multiple panels on **Trustworthy Computing 2009**
67. **Invitational:** 2009 NSF/EC Intl. Workshop on Co-operation in Trustworthy Systems: Security, Privacy and Trust in Large-Scale Global Networks & Services as Part of the Future Internet.
68. Network and Distributed System Security Symposium (**NDSS**) Steering Group 2009-12
69. NSF: panel in the **CyberTrust 2008** program
70. Reviewer for the **Estonian Science Foundation (ETF)**, 2008-11
71. Reviewer for the **Office of the Senior Science Advisor to the US Department of State** for the Moscow International ISTC and the Ukraine Science and Technology Centers 2007
72. **Invitational Workshop:** DOE Cyber Security Research Needs for Open Science 2007
73. NSF: multiple panels on **Cyber Trust** and **Information and Intelligent Systems 2007**
74. Reviewer for the Netherlands Council of Physical Sciences, Organization for Scientific Research (NWO) 2005

University Service

1. *Chair* of Stony Brook Computer Science **PR and Outreach Committee** (2010 onwards)
2. *Co-Chair* of Stony Brook Computer Science **Hiring Committee** (2010-12)
3. Stony Brook Computer Science **Web Committee** (2010)
4. Stony Brook Computer Science **Discretionary Increase Committee** (2010-11)
5. *Director* of CEWIT Cloud Computing Center (2009 onwards)
6. *Chair* of Stony Brook Computer Science **Career Committee** (2006-11)
7. *Director* of NSAC Lab, Trusted Hardware Lab
8. *Organizer* of yearly CS **Career Day**, Career Web Portal (2006-07)
9. Stony Brook Computer Science **Honors Committee** (2006-07)
10. Stony Brook Computer Science **Graduate Admission Committee** (2005-10)
11. Participated on the Stony Brook Graduate School Student Asia Interviewing Team (2008)
12. Stony Brook Computer Science **Graduate Evaluation Committee** (2006)
13. Stony Brook Computer Science **Qualifying Examinations Committee** (2005,2007)
14. **Research Proficiency Examination Committee:** Amit Sastukar (2005), Joy Dutta (2005), Gopalan Sivathanu (2005), Sol Lederer (2006, chair), Rick Spillane (2008), Mingwei Zhang (2011), Cheng-Chun Tu (2011)
15. *Supervised under-represented minority undergraduates* in the **SUNY Alliance for Graduate Education and the Professorate (AGEP)** 2005 Summer Research Institute (SRI)
16. **Master Thesis Committee:** V. Katta (chair,2006), S. Bhatt (2007), A. Anand (2009), Santosh Sonawane (2009)
17. **Preliminary Examination Committee:** Katia Hristova (2007), Weiqin Sun (2007)

Additional External Peer-Review Service

ACSAC (Annual Computer Security Applications Conference), **IEEE TDSC** (Transactions on Dependable and Secure Computing), Cluster SEC, **ACM TISSEC** (Transactions on Information and Systems Security), **ACM SACMAT** (Symposium on Access Control Models and Technologies), **IEEE S&P** (IEEE Security and Privacy), **VLDB Journal** (Very Large Databases Endowment), **ACM TODS** (Transactions on Database Systems), **TKDE** (Transactions on Knowledge and Data

Engineering), **EuroPAR** (International Conference on Parallel and Distributed Computing), **ACM SAC** (ACM Symposium on Applied Computing), **HIPC** (High Performance Computing), **IEEE IPSJ** (IEEE Symposium on Applications and the Internet), **IS** (Journal of Information Sciences), **SE&P** (Software Engineering and Practice), **IEEE SP** (Transactions on Signal Processing), **JDL** (Journal of Digital Libraries), **DAPD** (Journal on Distributed and Parallel Databases), **MMSJ** (Multimedia Systems Journal), **JIS** (EURASIP Journal on Information Security), **IS** (Elsevier Journal on Information Systems), **IEEE TC** (Transactions on Computers), **ACM TWEB** (Transactions on the Web), **JOMS** (Journal of Medical Systems), **ACM CSUR** (Computing Surveys), **IEEE/ACM TON** (Transactions on Networking), **TDP** (Transactions on Data Privacy), **IEEE TPDS** (Transactions on Parallel and Distributed Systems), **JCNC** (Journal of Computer Networks and Communications)

Students

▪ Current

- Peter Williams (PhD, expected graduation: May 2012)
- Yao Chen (PhD, expected graduation: December 2012)
- Sumeet Bajaj (PhD, expected graduation: December 2014)
- Rishab Nithyanand (PhD, expected graduation: 2014)
- Connor Fitzsimons (PhD, expected graduation: 2015)
- Moussa Ehsan (PhD, expected graduation: 2015)
- Bhushan Jain (PhD, expected graduation: 2016)
- Gaurav Menghani (MS, Fall 2011-Fall 2012)
- Suryanarayanan Balasubramanian (MS, Fall 2011-Spring 2013)
- Alin Tomescu (BS, Summer 2011 - Spring 2012)

▪ Graduated Students

- Sarath Kumar (MS, Fall 2010-Fall 2011)
- Aniruddha Laud (MS, Fall 2010-Fall 2011)
- Jing Jin (MS, Fall 2010-Fall 2011)
- Bo He (BS, Summer 2010-Fall 2011)
- Md Borhan Uddin (PhD, Spring-Fall 2010)
- Nilesh Mahajan (MS, Spring-Fall 2010)
- Shripad Nadgowda (MS, Spring-Fall 2010)
- Sumeet Dash (MS, Spring-Fall 2010)
- Sumit Sanghrajka (MS, Spring-Fall 2010)
- Ragib Hasan (UIUC PhD, graduated in September 2009, co-advised with Marianne Winslett at UIUC, first job: postdoc at Johns Hopkins)
- Minnu Tom (MS, Spring-Fall 2009, Microsoft)
- Rimmi Devgan (MS, Spring-Fall 2009, Microsoft)
- Ajay Venkateshan (MS, Spring-Fall 2009, Qualcomm)
- Pranavarun Jadhav (MS, Spring-Fall 2009)
- Smitha Thomas (MS, Spring-Fall 2008, NYC Bloomberg)
- Ashish Anand (PhD, graduated with MS, Fall 2007 – Spring 2009)
- Siddharth Bhatt (MS, Fall 2006 – Fall 2007)

- Sumeet Bajaj (MS, Fall 2005 – Fall 2006, Citigroup, SAP Research)
- Berook Alemayehu (minority undergrad from UMBC, lab intern in 2005)
- Peter Spano (undergraduate, graduated in Fall 2007)
- **Other students I worked with or helped bring to the department**
 - Miroslava Sotakova (postdoctoral researcher, Fall 2009 – Spring 2010)
 - Rajarshi Agnihotri (Fall 2008 – Fall 2009)
 - Feng Song (Fall 2008)
 - Isaac Chanin (Summer 2008)
 - Simona Boboila (Fall 2006 – Summer 2007)
 - George Iordache (Fall 2006 – Summer 2007)

Teaching (at Stony Brook, initial enrollment shown)

1. **CSE508** (Graduate Network Security): F08 (43), F07 (43), F06 (60), F05 (48-55)
2. **CSE509** (Graduate System Security): S05 (33-35)
3. **CSE408** (Network Security): S12 (22), F08 (15), F07 (19)
4. **CSE409** (System Security): S10 (12), S08 (12), S07 (20), S06 (12), S05 (11)
5. **CSE690** (Advanced Data Security): F09 (45, co-listed at UIUC)
6. **CSE690** (Secure Data Management): S08 (25, co-listed at UIUC)
7. **CSE590** (Storage Security, *with E. Zadok*): S07 (15-20)
8. **CSE594** (Cloud Computing): S10 (44)
9. **CSE659** (Security Seminar): F06 (5, 30 on mailing list)
10. **CSE659** (Wireless Security Seminar): S06 (8, 26+ on mailing list)
11. **CSE684** (Special Topics: Foundations of Cryptography): F05 (5-9)
12. **CSE661** (Data Privacy Seminar): S05 (4-12)

Selected Positions

- CEO and Founder, *Private Machines Inc.*
- Associate Professor, *Stony Brook University* (Aug 2010 onwards)
- Assistant Professor, *Stony Brook University* (Jan 2005 - Aug 2010)
- Visiting Researcher, *IBM Almaden Research Center* (Mar - Dec 2004)
- Research Assistant, *Purdue Computer Science and CERIAS* (Aug 2001 - Aug 2004)
- Internship: Research Scientist, *NEC Labs* (May-Aug 2001, Jun 2002, May-Aug 2003)
- Internship: Software Engineer, *IBM* (May-Aug 2000)
- Research Assistant, *Purdue Computer Science*, BOND Agent System Lab (Spring 2000)
- Teaching Assistant, *Purdue Computer Science* (Fall 1999, 2000)
- Teaching Assistant, "*Politehnica*" *U. of Bucharest Computer Science* (1997-99)
- Research Assistant, "*Politehnica*" *U. of Bucharest Digital Signal Processing Lab* (1994-97)

Contact

Address: Computer Sciences, Stony Brook University, Stony Brook, NY 11794-4400

Email: sion@cs.stonybrook.edu **Web:** <http://www.cs.stonybrook.edu/~sion>

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