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## Publications

Peter Williams, Radu Sion, Dennis Shasha. The Blind Stone Tablet: Outsourcing Durability. To appear in Proceedings of the Network and Distributed System Security Symposium (NDSS) 2009.  
(acceptance rate: 11.7%)

Peter Williams, Radu Sion, Bogdan Carbunar. Building Castles out of Mud: Practical Access Pattern Privacy and Correctness on Untrusted Storage. ACM Conference on Computer and Communications Security (CCS) 2008.  
(acceptance rate: 18.1%)

Peter Williams, Radu Sion. Usable PIR. Proceedings of the Network and Distributed System Security Symposium (NDSS) 2008.  
(acceptance rate: 17.8%)

Ambros V, Lee RC, Lavanway A, Williams PT, Jewell D.  
MicroRNAs and Other Tiny Endogenous RNAs in *C. elegans*.  
Curr Biol 2003 May 13; 13(10):807-18.

## Research Interests

Secure data outsourcing, network security, system security,  
applied cryptography, private information retrieval.

## Education

Ph.D. student in Computer Science, Stony Brook University, expected 2011.  
B.S. in Computer Science, Summa Cum Laude, Brandeis University, 2005.

## Awards and Honors

Graduate Council Fellowship, Stony Brook University, 2006-2011.  
Michtom Prize for Academic Excellence in Computer Science, 2005.  
Phi Beta Kappa 2005; Undergraduate GPA 3.89.  
Dean's List all 8 semesters at Brandeis University.  
Senior Honors Thesis: Design, Analysis, and Implementation of an Optimizing Compiler of JScheme to the JVM.

## Selected Projects

**Usable PIR:** Mechanism allowing users to efficiently download from a server with full privacy -- the potentially malicious server never learns what was downloaded. (Stony Brook)

**Browser Isolation with MicroDomains:** By viewing every site in a separate virtual machine, the browser's same-origin security policy is enforced externally; security flaws in the web browser are rendered harmless. (IBM Research)

## Selected Projects, continued

### **Network Secure Searchable Storage with Privacy and Correctness:**

Efficient data outsourcing to an untrusted service provider, offering full read/write privacy and correctness. (Stony Brook)

**Network Services Restructuring.** Redesign the internal information paths of the Brandeis IT department to support an XML-RPC interface, allowing better application interoperability, administration, and data consistency. (Brandeis University)

**MicroRNAs and Other Tiny Endogenous RNAs in C.elegans.** Use a computational genetics approach, aggregating information from multiple sources (pattern matching, free energy calculations, and evolutionary data) to predict and validate candidate microRNAs. (Dartmouth Medical School)

## Refereed Posters

"Usable PIR": Cyber Security Awareness Week 2008.

"Privacy Threats in Online Stock Quotes": Financial Cryptography 2008.

"NS3: Networked Secure Searchable Storage": Usenix Security 2007.

## Reviews

Paper reviews for CCS 2007, CCS 2008, IJIS, SIGMOD 2008, TISSEC 2007.

## Work Experience

Research Assistant, Stony Brook University	2006 - Present
Summer Research Intern, IBM Research (T.J. Watson)	2007
Web Developer, Brandeis University	2005 - 2006
Student Web Developer, Brandeis University	2002 - 2005
Research Assistant, Dartmouth Medical School	2001 - 2005

## Teaching

Lectures for CSE 409 - Introduction to System Security (Stony Brook)

Lectures for CSE 508 - Network Security (Stony Brook)

## Programming Skills

7 Years experience programming in UNIX (Linux, Irix, MacOS X)  
Adept at programming in C, C++, Java, Perl, PHP, SQL, XHTML/CSS  
Confident in the areas of Web and Network Security, Databases, Web Programming, Algorithms, and Data Structures, Virtual Machines, Compilers

## Selected Graduate Coursework

Secure Storage - Trusted hardware, provenance, regulatory compliance.

Secure Data Management - Encrypted file systems, protocols, cryptography.

Network Security - Protocols, algorithms, cryptography, and implementation.

Operating Systems - File systems, network stack. Linux kernel programming.