THOMAS MOYER

The Pennsylvania State University
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EDUCATION

The Pennsylvania State University University Park, PA
PhD, Computer Science and Engineering, December 2011
Advisor: Dr. Patrick D. McDaniel
Dissertation Title: *Building Scalable Document Integrity Systems*

The Pennsylvania State University University Park, PA
MS, Computer Science and Engineering, 2009
Advisor: Dr. Patrick D. McDaniel
Thesis Title: *Scalable Web Content Attestations*

The Pennsylvania State University University Park, PA
B.S., Computer Engineering, 2006

ACADEMIC APPOINTMENTS

Research Assistant, Summer 2008 to Present
The Pennsylvania State University, University Park, PA
Advisor: Dr. Patrick D. McDaniel
Worked on problems in virtual machine security.
Utilized technologies for virtualization and trusted hardware to develop secure computing applications.
Worked on problems in Web security.

Research Assistant, Fall 2007 to Spring 2008
The Pennsylvania State University, University Park, PA
Advisor: Dr. Patrick D. McDaniel
Mentor: Dr. Subhabrata Sen
Worked on problems in configuration management.
Assisted in developing/testing tool for creating router configurations.

Instructor, Spring 2007
The Pennsylvania State University, University Park, PA
Department of Computer Science Engineering, Pennsylvania State University
Introduction to Algorithmic Processes (CMPSC 101)
Instructed students in program design and creation using the MS Visual Basic programming language.

INDUSTRIAL APPOINTMENTS

Summer Research Intern AT&T, Summer 2007
Internet and Networking Systems Research Center, AT&T Labs Research, Florham Park, NJ
Mentor: Dr. Subhabrata Sen
Worked on problems in configuration management.
Assisted in developing internal tool for creating configurations.

Systems Administrator, March 2004 to Summer 2007
Geodynamics Research Group, The Pennsylvania State University, University Park, PA
Supervised by Dr. Kevin Furlong

Responsible for maintaining and upgrading systems and infrastructure.
Implemented an automated, platform independent, remote backup system.
Assisted with some minimal scientific programming for research.

PROFESSIONAL ACTIVITIES

Reviewer
2011: IEEE Symposium on Security and Privacy (Oakland)

2010: Annual Computer Security Applications Conference (ACSAC), ACM Computer and Communications Security Conference (CCS), USENIX Workshop on Hot Topics in Security (HotSec), ACM Symposium on Access Control Models and Technologies (SACMAT), ACM Transactions on Internet Technology (TOIT), IEEE Transactions on Software Engineering (TSE), Springer-Verlag Transactions on Computational Science (TCS), IEEE Security and Privacy Magazine(S&P)

2009: ACM Symposium on Access Control Models and Technologies (SACMAT), ACM Computer and Communications Security Conference (CCS), International Conference on Information Security and Assurance (ISA), USENIX Security Symposium (USENIX Security), Fifth International Conference on Information Systems Security (ICISS 2009), IEEE Transactions on Software Engineering (TSE), ACM Cloud Computing Security Workshop (CCSW), Packt Publishing

2008: Workshop on Virtual Machine Security (VMSec), USENIX Workshop on Hot Topics in Security (HotSec), Fourth International Conference on Information Systems Security (ICISS 2008)

PROFESSIONAL AFFILIATIONS

USENIX Advanced Computing Systems Association (USENIX)

COMPUTING SKILLS

Programming Languages - C, C++, Java, Python, Perl, PHP, JavaScript

Operating Systems - Linux, IBM AIX, MS Windows, Sun Solaris, Mac

Other Applications - Matlab, Maxima, Maple, Mathematica

PUBLICATIONS

[1] Kevin Butler, Stephen McLaughlin, Thomas Moyer, Trent Jaeger, and Patrick McDaniel. SwitchBlade: Policy-Driven Disk Segmentation. Technical Report NAS-TR-0098-2008, Network and Security Research Center, Department of Computer Science and Engineering, Pennsylvania State University, University Park, PA, USA, November 2008.

[2] Kevin Butler, Stephen McLaughlin, Thomas Moyer, and Patrick McDaniel. OS Security Architectures Built on Smart Disks. *IEEE Security & Privacy Magazine*, 2010.

[3] Kevin Butler, Stephen McLaughlin, Thomas Moyer, Joshua Schiffman, Patrick McDaniel, and Trent Jaeger. Firma: Disk-Based Foundations for Trusted Operating Systems. Technical Report NAS-TR-0114-2009, Network and Security Research Center, Department of Computer Science and Engineering, Pennsylvania State University, University Park, PA, USA, April 2009.

[4] William Enck, Thomas Moyer, Patrick McDaniel, Subhabrata Sen, Panagiotis Sebos, Sylke Spoerel, Albert Greenberg, Yu-Wei Eric Sung, Sanjay Rao, and William Aiello. Configuration management at massive scale: System design and experience. *IEEE Journal on Selected Areas in Communications (JSAC)*, 2009.

[5] Boniface Hicks, Sandra Rueda, Dave King, Thomas Moyer, Joshua Schiffman, Yogesh Sreenivasan, Patrick McDaniel, and Trent Jaeger. An Architecture for Enforcing End-to-End Access Control Over Web Applications. In *Proceedings of the 2010 Symposium on Access Control Models and Technologies, SACMAT '10*, 2010.

[6] Thomas Moyer. USENIX Conference on Web Application Developement Session Summaries. ;login: The USENIX Magazine, October 2010.

[7] Thomas Moyer. USENIX Security Symposium Session Summaries. ;login: The USENIX Magazine, 2010.

[8] Thomas Moyer, Kevin Butler, Joshua Schiffman, Patrick McDaniel, and Trent Jaeger. Scalable Web Content Attestation. In *ACSAC '09: Proceedings of the 2009 Annual Computer Security Applications Conference*, 2009.

[9] Thomas Moyer, Kevin Butler, Joshua Schiffman, Patrick McDaniel, and Trent Jaeger. Scalable Web Content Attestation. *IEEE Transactions on Computers*, 2011. *to appear.*

[10] Joshua Schiffman, Thomas Moyer, Trent Jaeger, and Patrick McDaniel. Network-based Root of Trust for Installation. *IEEE Security & Privacy Magazine*, Jan/Feb 2011.

[11] Joshua Schiffman, Thomas Moyer, Christopher Shal, Trent Jaeger, and Patrick McDaniel. Justifying Integrity Using a Virtual Machine Verifier. In *Proceedings of the 2009 Annual Computer Security Applications Conference, ACSAC '09*, December 2009.

[12] Joshua Schiffman, Thomas Moyer, Christopher Shal, Trent Jaeger, and Patrick McDaniel. No Node Is an Island: Shamon Integrity Monitoring Approach. Technical Report NAS-TR-0103-2009, Network and Security Research Center, Department of Computer Science and Engineering, Pennsylvania State University, University Park, PA, USA, February 2009.

[13] Joshua Schiffman, Thomas Moyer, Hayawardh Vijayakumar, Trent Jaeger, and Patrick McDaniel. Seeding Clouds with Trust Anchors. In *CCSW '10: Proceedings of the 2010 ACM workshop on Cloud computing security*. ACM, 2010.