

Contact

Todd Deshane
147 Wallins Corners Rd. Apt 51
Amsterdam, NY 12010
(315) 600-8633
deshantm@gmail.com

Education

Doctor of Philosophy in Engineering Science, Clarkson University
Completed August 2010
Major in Computer Science
Minor in Information Technology
Overall GPA: **3.64**

Master of Science in Computer Science, Clarkson University
Completed December 2004
Overall GPA: **3.44**

Bachelor of Science in Software Engineering, Clarkson University
Completed May 2003
Minor in Mathematics
Overall GPA: **3.50**

Work Experience

Technology Evangelist **Citrix Systems** - October 2010 to present

- Support the Xen.org open source community
- Create and manage documentation and training materials (e.g. Xen Day Boston 2011)
- Collaborate with various open source projects related to Xen (e.g. OpenStack)
- Coordinate with Xen developers and community manager

Postdoctoral Research Associate **Clarkson University** - November 2010 to October 2011

- Research goal: To make mission objectives information-aware by creating and running simulations of mission space and cyber (network) space models.
- Created integrated network+mission modelling framework

Virtualization and Cloud Computing Consultant **Vantage Technologies** - May 2010 to December 2010

- Researched open source hybrid cloud computing solutions for a data center environment
- Researched and developed Hadoop cluster setup and workflow management solution

Google Summer of Code Intern - **Chromium OS Project** - May 2010 to August 2010

- Added infrastructure to help Chromium OS run better in virtual machine environments

Research Assistant **Clarkson University** - January 2010

- Implemented biometrics statistical algorithms to supplement a biometrics textbook

Consultant **Vantage Technologies** - Summer 2008

- Consulted in purchasing decisions for server-class virtualization hardware
- Tested and deployed virtualization software (Xen) for a production (Linux+Java) environment

Speed Team Member **IBM Linux Technology Center** - Summer 2006

- Developed a rapid prototype virtual data center with IBM hardware
- Presented the high-level system overview to various IBM managers and executives
- Presented technical details to IBM software developers

Teaching Assistant **Clarkson University** - Fall 2004 to Spring 2007

- Taught recitations for Operating Systems, Calculus, and Computer Science
- Led lab sessions for Operating Systems and Computer Science
- Held office hours, proctored exams, and graded exams and assignments

Software Developer **Haenel Communication Technologies** - July 2004 to December 2005

- Developed database and application for student management system
- Consulted with server and network configuration problems at client site

Student Director **Clarkson Internet Teaching Laboratory** - Fall 2003 to Spring 2006

- Led research projects such as IPv6, Voice over IP, and Lab Management Team
- Administered web, database, and file servers running various operating systems
- Maintained and deployed the Windows software build on 30 dual booting lab computers

Network Technician **Clarkson Office of Information Technology** - July 1999 to May 2003

- Solved computer and network problems in faculty/staff offices and student dorms
- Ran network cable, configured Cisco switches
- Provided over-the-phone and in-person helpdesk support

Publications

- T. Deshane. A Desktop System for Attack-Resistance and Rapid Recovery. Lambert Academic Publishing (LAP). ISBN: 978-3-8433-6730-1. December 2010.
- P.F. Wilbur and T. Deshane. Johnny Can Drag and Drop: Determining User Intent Through Traditional Interactions to Improve Desktop Security. ACM CHI/MIT '10. In Proceedings of the 4th Symposium on Computer Human Interaction for the Management of Information Technology. November 2010.
- P.F. Wilbur and T. Deshane. On Not "Jumping the Gun" and Not "Reinventing the Wheel" When Designing and Evaluating Usable Security: How Sound Problem Identification and Appropriate Metrics Can Save the World. Presented at "The Understanding Friend and Family based Security and Privacy Issues Workshop". NordiCHI 2010. Reykjavik University. Reykjavik, Iceland. October 2010.
<http://hcisec.org>
- T. Deshane. An Attack-Resistant and Rapid Recovery Desktop System. PhD Dissertation, Clarkson University. ISBN: 9781124282091. August 2010.
- W. Hu, T. Deshane, and J. Matthews. Solaris Virtualization Options. USENIX ;login Volume 33, Number 5. October 2008.
- J. Matthews, E.M. Dow, T. Deshane, W. Hu, J. Bongio, P.F. Wilbur, and B. Johnson. Running Xen: A Hands-on Guide to the Art of Virtualization. Prentice Hall. April 2008.
<http://runningxen.com>
- T. Deshane. System Support for Rapid Recovery and Attack Resistance. Ph.D. Proposal. August 2007.
- T. Deshane, W. Hu, P. Jablonski, H. Lin, C. Lynch, and R.E. McGregor. Encoding First Order Proofs in SAT. 21st Conference on Automated Deduction (CADE-21). July 2007.

- J. Matthews, W. Hu, M. Hapuarachchi, T. Deshane, D. Dimatos, G. Hamilton, M. McCabe, and J. Owens. Quantifying the Performance Isolation Properties of Virtualization Systems. Workshop on Experimental Computer Science (ExpCS). June 2007.
- J. Matthews, J. Herne, T. Deshane, P. Jablonski, L. Cherian, and M. McCabe. Data Protection and Rapid Recovery from Attack with a Virtual Private File Server and Virtual Machine Appliances. IASTED International Conference on Communication, Network and Information Security (CNIS 2005). November 2005.
- T. Deshane, P. Jablonski, K. Roberts, and J. Matthews. Web-Based Collaborative Exploration and Characterization of Large Databases. International Journal of Technology, Knowledge and Society. February 2005.
- T. Deshane. Web-based Collaborative Exploration and Characterization of Large SQL Databases. Masters Thesis, Clarkson University. December 2004.
- B. Clark, T. Deshane, E. Dow, S. Evanchik, M. Finlayson, J. Herne, and J. Matthews. Xen and the Art of Repeated Research. USENIX 2004 Annual Technical Conference, FREENIX Track. June 2004.
- T. Deshane and A. Venkatraman. Transmitting and Tracking Packets of Data through the TCP and UDP Network Protocols. Symposium on Undergraduate Research Experiences (SURE). Ronald E. McNair Research Program. Summer 2002.

Professional and Academic Presentations

- T. Deshane, S. Maresca, J. West, and P.F. Wilbur. Xen Day Boston 2011. Sheraton Boston Hotel. Boston, MA. December 9, 2011.
- T. Deshane. Why Choose Xen For Your Cloud. Build an Open Source Cloud Day Boston. Sheraton Boston Hotel. Boston, MA. December 9, 2011.
- T. Deshane and E. Mellor. Xen.org's OpenStack-related Initiatives. OpenStack Conference. Boston Intercontinental Hotel. Boston, MA. October 7, 2011.
- T. Deshane. Integrating Xen and OpenStack with Project Kronos. OpenStack Essex Design Summit. Boston Intercontinental Hotel. Boston, MA. October 5, 2011.
- T. Deshane. Computer Security for Mission Assurance. Clarkson University Coulter School of Engineering Graduate Research Symposium. Clarkson University. Potsdam, NY. August 11, 2011. **Won best presentation in Mathematics and Computer Science category.**
- P. Voccio, E. Mellor, and T. Deshane. Achieving Hybrid Cloud Mobility with OpenStack and XCP. Open Source Convention (OSCON) 2011. Portland, OR. July 28, 2011.
- T. Deshane. Open Source Cloud Computing: Practical Solutions For Your Online Presence. North Country Technology Symposium. May 25, 2011.
- T. Deshane and P.F. Wilbur. T1: Introduction to the Open Source Xen Hypervisor. USENIX LISA 2010, Training Track. San Jose Marriott. San Jose, CA. November 9, 2010.
- T. Deshane. An Attack-Resistant and Rapid Recovery Desktop System: A PhD Defense by Todd Deshane. August 25, 2010.
- T. Deshane. System Support for Rapid Recovery and Attack Resistance. ATC-NY Friday Talk. Ithaca, NY. August 8, 2008.
- T. Deshane. Quantitative Comparison of Xen and KVM. Xen Summit. Sheraton Boston Hotel. Boston, MA. June 23, 2008.

- T. Deshane, P.F. Wilbur, and S. Spector. S4: Introduction to the Open Source Xen Hypervisor. USENIX 2008 Annual Technical Conference, Training Track. Sheraton Boston Hotel. Boston, MA. June 22, 2008.
- T. Deshane. An Example-Driven Look at the Rapid Recovery System. Computer Science Seminar. Clarkson University. December 7, 2007.
- T. Deshane. Rapid Recovery System. Research Poster Presentation. Cyber Security Awareness Week (CSAW). Polytechnic University. Brooklyn, NY. December 4, 2007.
- T. Deshane. System Support for Rapid Recovery and Attack Resistance. Electrical and Computer Engineering Seminar. Clarkson University. September 27, 2007.
- T. Deshane. System Support for Rapid Recovery and Attack Resistance. Ph.D. Proposal. August 9, 2007.
- T. Deshane. Towards an Attack-Resistant Desktop. Computer Science Seminar. Clarkson University. April 26, 2007.
- T. Deshane. High Availability of Virtualized Desktop Applications. Computer Science Seminar. Clarkson University. December 7, 2006.
- T. Deshane, S. Evanchik, and J. Matthews. Xen and the Art of Repeated Research. USENIX 2004 Annual Technical Conference, FREENIX Track. Boston Marriott Copley Place. Boston, MA. July 2, 2004.
- T. Deshane and A. Venkatraman. Transmitting and Tracking Packets of Data through the TCP and UDP Network Protocols. Symposium on Undergraduate Research Experiences (SURE). Ronald E. McNair Research Program. Summer 2002.

Awards, Honors, and Professional Societies

IBM Ph.D. Fellowship – 2007-2008 and 2008-2009

- Awarded tuition, fees, and stipend in worldwide competitive program

Miller/Davis Service Award – Spring 2006

- Awarded for outstanding service in the Department of Mathematics and Computer Science

First Place Team in 2005 UNISYS TuxMasters Invitational – August 2005

- Won prizes totaling over \$70,000 and a trip to LinuxWorld in San Francisco, CA

Phalanx Commendable Service Award – Spring 2005

- Awarded for demonstrated quality of service to Applied Computing Labs

Pi Mu Epsilon (PME) Honorary National Mathematics Society – Since Spring 2005

- Recognized for outstanding achievement in Mathematics

Eta Kappa Nu (HKN) Electrical Engineering Honor Society – Since Fall 2002

- Recognized for excellence in the Electrical and Computer Engineering field

Ronald E. McNair Scholars Summer Research Program – Summer 2002

- Awarded stipend, did collaborative research with a faculty mentor, and presented results

Institute of Electrical and Electronics Engineers (IEEE) – Since Fall 2002

Association for Computing Machinery (ACM) – Since Fall 2003

Volunteer Activities

Symposium on Operating Systems Principles (SOSP) 2009 Webmaster

- Redesigned web layout and corresponded with various parties to keep site up-to-date

BOCES Teaching Assistant

- Taught Computer Science topics to high school students

Project Challenge Teaching Assistant Spring 2005, Spring 2006, Spring 2007

- Taught Computer Science topics to high school students

Lending Cupboard Helper

- Entered data of borrowed items, moved furniture, cleaned and organized items

Select Software Engineering Projects

Generic Database Explorer and BDAP Explorer and the BGP Data Analysis Project (BDAP)

- Developed the BDAP Explorer as an instance of the Generic Database Explorer to explore and characterize large data sets
- This project submission won the 2005 UNISYS TuxMasters Invitational
- Collaborated with 3 McNair Scholars to establish databases to study the Internet

Public Media Manager Content Management System

- Developed database and application for North Country Public Radio

Online Quiz Application

- Worked on database interface 4-person team and integrated with GUI team

Point of Sales (POS) Application

- Focused on user-friendly front-end to integrate with backend database

Instant Messenger

- Worked with a team to develop network module for a client-server application

Online Movie Store

- Worked with a team to develop network module for a client-server application
- Implemented using an Oracle database and PHP front-end in 3-person team

Elevator Simulation

- Familiarized with working elevator logic to develop object-oriented simulation

Microsoft Foundation Classes (MFC) Paint, Timer, and Document Analyzer

- Designed and developed event-driven paint, timer, and document analyzer applications

Text-based Solitaire Game

- Adapted Java GUI into console-based C++ application in 2-person team

Select Programming Experience

C, C++, Java, J2EE, PHP, Perl, Python, CGI, HTML, CSS, JavaScript, Prolog, Bash Scripting, UNIX Utilities (Sed, Awk, Grep), SQL, MySQL, OpenGL/Glut

Select Operating System Knowledge

Ubuntu Linux, Red Hat/Fedora Linux, Gentoo Linux, Microsoft Windows, VMware, Xen, The Kernel-based Virtual Machine (KVM), Virtualization, Andrew File System (AFS), Log-structured File System (LFS)

Collegiate Clubs and Activities

Graduate Student Association (GSA) – Since Fall 2003

- President, Vice President, Member of Steering Committee, Co-founded Services Committee

Internet Teaching Laboratory (ITL) and Networking Club – Since Fall 2001

- Taught students about networking hardware and software available in the lab
- Taught local high school students in the Project Challenge program
- Taught lab to Clarkson students taking introductory networks course
- Promoted ITL to prospective students and parents as Open House representative

Clarkson Open Source Institute (COSI) – Since Fall 2003

- Worked on lab management team to maintain Linux computers
- Promoted COSI projects as a member of the public relations team

Health and Physical Fitness

- Participated in Intramural Hockey, Broomball, and Softball – Since Fall 1999
 - Hockey team representative Spring 2005
 - Softball team representative Fall 2004

Clarkson Radio WTSC 91.1 FM “The Source”

- Disc Jockey, Co-host of the “Common Sense Computing” and “Northern Light” radio shows