

Apu Kapadia: Curriculum Vitae

Research Interests

Privacy, Network and Systems Security, Usable Security, Pervasive and Mobile Computing Security, Peer-to-Peer Network Security, Applied Cryptography

Current Position

Assistant Professor of Computer Science and Informatics
School of Informatics and Computing
Indiana University Bloomington
September 2009–Present

Education

Ph.D. in Computer Science, October 2005
University of Illinois at Urbana-Champaign
Dissertation Topic: *Models for Privacy in Ubiquitous Computing Environments*
Advisor: Prof. Roy H. Campbell

M.S. in Computer Science, May 2001
University of Illinois at Urbana-Champaign
Thesis: *I-RBAC 2000: A Dynamic Role Translation Model For Secure Interoperability*
Advisor: Prof. Roy H. Campbell

B.S. in Computer Science with Honors, May 1998
University of Illinois at Urbana-Champaign

Awards and Recognition

Runner-up for PET Award, 2009: Outstanding Research in Privacy Enhancing Technologies
Patrick P. Tsang, Man Ho Au, Apu Kapadia, and Sean W. Smith, "PEREA: Towards Practical TTP-Free Revocation in Anonymous Authentication," In Proceedings of The 15th ACM Conference on Computer and Communication Security (CCS), 2008

Runner-up for PET Award, 2009: Outstanding Research in Privacy Enhancing Technologies
Patrick P. Tsang, Man Ho Au, Apu Kapadia, and Sean W. Smith, "Blacklistable Anonymous Credentials: Blocking Misbehaving Users without TTPs," In Proceedings of the 14th ACM Conference on Computer and Communication Security (CCS), 2007

Honorable Mention Award (Runner-up for Best Paper)
Apu Kapadia, Tristan Henderson, Jeffrey Fielding, and David Kotz, "Virtual Walls: Protecting Digital Privacy in Pervasive Environments," In Proceedings of The Fifth International Conference on Pervasive Computing (PERVASIVE), 2007

Institute of Security Technology Studies (ISTS) Post-Doctoral Research Fellowship
Funded by Department of Homeland Security (DHS)
Dartmouth College, October 2005–June 2008

Department of Energy (DoE) High-Performance Computer Science Fellowship
Four Year Research Fellowship, September 2001–August 2005

Travel Grant
ACM Conference on Computer and Communications Security (CCS), 2004

Outstanding Department Service Award

Department of Computer Science, University of Illinois at Urbana-Champaign. May 2003

Invited Paper, The Journal of Supercomputing

Annette C. Feng, Apu C. Kapadia, Wu-chun Feng, and Geneva G. Belford, "Packet Spacing: An Enabling Mechanism for Delivering Multimedia Content in Computational Grids," 23(1):51–66 (2002)

Outstanding Class Project (CS 497 RHK)

First Annual Illinois Computer Systems Symposium (iCSS), 2002

Dean's List

College of Engineering, University of Illinois at Urbana-Champaign

Grants

NSF Networking Technology and Systems (NeTS), \$150K, PI

NeTS: Small: Collaborative Research: ReDS: Reputation for Directory Services in P2P Systems

CNS-1115693

September 2011–August 2014

I3P, \$275K, PI

Developing Frameworks to Address Issues in Privacy

I3P sub-award funded by Federal Prime DHS contract #2006-CS-001-000001

February 1, 2011–July 31, 2012

NSF Trustworthy Computing, \$270K, PI

TC: Small: Collaborative Research: Improved Privacy through Exposure Control

CNS-1016603

September 2010–August 2013

Center for Applied Cybersecurity Research (CACR) Internal Research Grant, \$50K, PI

Sourcing the Experts: Distributed Social Networks for Privacy-Aware Knowledge Sharing

CACR Research Grant funded by an award from the Lilly Endowment to the Pervasive Technology Institute and the Center for Applied Cybersecurity Research

July 2010–June 2011

Academic Activities

Teaching Experience

G: Graduate course; U: Undergraduate course; U/G: Undergraduate and Graduate course

School of Informatics and Computing, Indiana University Bloomington	
<i>Instructor, INFO-I 433/533: Systems & Protocol Security & Information Assurance (U/G)</i>	Spring 2012
<i>Instructor, CSCI-B 649/INFO-I 590: Advanced Topics in Privacy (G)</i>	Fall 2011
<i>Instructor, I-308: Information Representation (U)</i>	Spring 2011
<i>Instructor, CSCI-B 649/INFO-I 590: Advanced Topics in Privacy (G)</i>	Fall 2010
<i>Instructor, INFO-I 400/590: Advanced Security and Privacy (U/G)</i>	Spring 2010
<i>Instructor, INFO-I 590: Advanced Topics in Privacy (G)</i>	Fall 2009
<i>Instructor, CS 38: Security and Privacy (U/G)</i>	Fall 2007
Department of Computer Science, Dartmouth College	
<i>Guest Lecture, Privacy: Anonymous Communication Systems, CS 38: Security and Privacy</i>	May 2006
Department of Computer Science, Dartmouth College	
<i>Founder and facilitator of Security Reading Group Seminar</i>	Nov 2005–Aug 2008
Institute for Security Technology Studies (ISTS), Dartmouth College	
<i>Co-founder and co-facilitator of Security Reading Group Seminar</i>	Sep 2000–May 2005
Department of Computer Science, University of Illinois at Urbana-Champaign	
<i>Guest Lecture, Middleware, CS 423: Operating Systems Design</i>	Apr 2005
Department of Computer Science, University of Illinois at Urbana-Champaign	

Outreach Activities

<i>Video host</i>	October, 2010
Social Networking Do's and Don'ts (4 min, 19 sec)	
http://www.securitymatters.iu.edu/social-networking/	
Produced by the Center for Applied Cybersecurity Research	
Indiana University Bloomington	
<i>Co-Lead Instructor</i>	June 23–27, 2008
Make and Break Cryptographic Security Summer Camp for Grades 10–12	
Department of Computer Science, Dartmouth College	
<i>Lead Instructor</i>	June 25–29, 2007
Cybersecurity Summer Camp for Grades 10–12	
Department of Computer Science, Dartmouth College	
<i>Security and Programming Instructor</i>	July 10–28, 2006
Summer Robotics Camp	
Camp I (Grades 6–8), Camp II (Grades 6–8), and Camp III (Grade 9)	
Department of Computer Science, Dartmouth College	

PhD Thesis Committees

Vaibhav Garg, <i>Risk Perceptions of Online Risks</i> Indiana University	Proposed Dec 2011
Sonia Jahid, <i>Towards a Security and Privacy-Aware Online Social Network</i> University of Illinois at Urbana-Champaign	Proposed April 2011
Youngsang Shin, <i>Understanding and Mitigating Forum Spam</i> Indiana University	Defended Jul 2011
Alexander Iliev, <i>Hardware-Assisted Secure Computation</i> Dartmouth College	Defended Sep 2008

Advising

Sameer Patil (Postdoc) School of Informatics and Computing, Indiana University Bloomington	Spring 2011–Current
Robert Templeman (PhD) School of Informatics and Computing, Indiana University Bloomington	Fall 2011–Current
Zahidur Rahman (PhD) School of Informatics and Computing, Indiana University Bloomington	Fall 2011–Current
Shirin Nilizadeh (PhD) School of Informatics and Computing, Indiana University Bloomington	Fall 2010–Current
Greg Norcie (PhD) School of Informatics and Computing, Indiana University Bloomington	Fall 2011–Current
Zheng Dong (PhD) Co-advised with Jean Camp School of Informatics and Computing, Indiana University Bloomington	Fall 2011–Current
Naveed Alam (MSSI) School of Informatics and Computing, Indiana University Bloomington	Fall 2010–May 2011
Roman Schlegel (PhD, Visiting Scholar) City University of Hong Kong Visiting School of Informatics and Computing, Indiana University Bloomington	Spring 2011–Fall 2011
Roman Schlegel (PhD, Intern) City University of Hong Kong Visiting School of Informatics and Computing, Indiana University Bloomington	Fall 2009

Graduate Mentoring

Patrick P. Tsang (PhD student)
Department of Computer Science, Dartmouth College

Fall 2005–Summer 2008

Peter C. Johnson (Masters student)
Department of Computer Science, Dartmouth College

Fall 2006–Summer 2007

Undergraduate Mentoring

Summer interns at the School of Informatics and Computer, Indiana University Bloomington

Ashley Clodfelter, Alana Anderson

Graduate and undergraduate Summer 2011 interns from the
Department of Computer Science, North Carolina A&T State University

Jeffrey Fielding (undergraduate student)
Department of Computer Science, Dartmouth College

Our research was published in the International Conference on Pervasive Computing (PERVASIVE '07) and was given an Honorable Mention Award (Runner-up for Best Paper)

Undergraduate interns for Women in Science Project (WISP), Dartmouth College

Katelin Bailey, Linden Vongsathorn

Our research was published as a poster abstract at the Symposium on Usable Privacy and Security (SOUPS '07), and as a short paper at the Workshop on Privacy in the Electronic Society (WPES '08).

Casey Gardiner, Fabeah Adu-Oppong

Our research was published as a poster abstract at the Symposium on Usable Privacy and Security (SOUPS '08)

Research Appointments

Indiana University Bloomington

ASSISTANT PROFESSOR OF INFORMATICS AND COMPUTER SCIENCE, Sep 2009–Present
School of Informatics and Computing

MIT Lincoln Laboratory

MEMBER OF TECHNICAL STAFF, Information Systems Technology Group Sep 2008–Aug 2009
Research position exploring topics such as Intrusion Detection

Dartmouth College

RESEARCH ASSISTANT PROFESSOR, Department of Computer Science Jul 2008–Aug 2008

POST-DOCTORAL RESEARCH FELLOW, Institute for Security Technology Studies Oct 2005–Jun 2008
PKI/Trust Lab with Prof. Sean W. Smith, and
Center for Mobile Computing (CMC) with Prof. David Kotz

Microsoft Research India, Bangalore (MSRI)

VISITING RESEARCHER, Rigorous Software Engineering Group (RSE) Aug 2007
Policy languages for privacy

University of Illinois at Urbana-Champaign (UIUC)

DOE RESEARCH FELLOW Sep 2001–Aug 2005
Advisor: Prof. Roy H. Campbell
Anonymity, privacy, security aware routing, and policy protection

RESEARCH ASSISTANT, Systems Software Research Group Sep 1999–Aug 2001
Advisor: Prof. Roy H. Campbell
Secure interoperability using dynamic role translation

Los Alamos National Laboratory (LANL)

GRADUATE RESEARCH ASSISTANT, RADIANT Group May 2002–Aug 2002
Mentor: Prof. Wu-chun Feng
Proactive queue management schemes

GRADUATE RESEARCH ASSISTANT, RADIANT Group May 2000–Aug 2000
Mentor: Prof. Wu-chun Feng
Rate-based protocols for congestion control

National Center for Supercomputing Applications (NCSA)

RESEARCH ASSISTANT, Horizon Group Jun 1999–Aug 1999
Implemented a distributed version of the Horizon Browser using RMI

RESEARCH ASSISTANT, Hierarchical Data Format Group Sep 1998–May 1999
Performance evaluation of “chunking” for PO.DAAC’s (JPL, NASA) datasets

UNDERGRADUATE RESEARCH PROGRAMMER, Hierarchical Data Format Group
Implemented a distributed version of the Java HDF Viewer using Java servlets Jan 1997–Jun 1997

Industrial Appointments

Jet Propulsion Laboratory (NASA)

SUMMER HIRE, Physical Oceanography DAAC (PO.DAAC)
Developed Java client and server code to serve satellite data Jul 1998–Aug 1998

Vosaic

UNDERGRADUATE RESEARCH PROGRAMMER
Reflector code for streaming multimedia between Reflectors and RTSP servers Aug 1997–May 1998

Strategic Technology Resources

SUMMER INTERN
Developed a large multithreaded client application for an ISP system Jun 1997–Aug 1997

Publications

Peer-Reviewed Journal Papers

Man Ho Au, Patrick P. Tsang, and Apu Kapadia, "PEREA: Practical TTP-Free Revocation of Repeatedly Misbehaving Anonymous Users," *ACM Transactions on Information and System Security (ACM TISSEC)*, Volume 14, Issue 4, Article 29, 34 pages (December 2011).

Patrick P. Tsang, Apu Kapadia, Cory Cornelius, and Sean W. Smith, "Nymble: Blocking Misbehaving Users in Anonymizing Networks," *IEEE Transactions on Dependable and Secure Computing (IEEE TDSC)*, Volume 8, Number 2, pp. 256–269 (March–April 2011).

Minho Shin, Cory Cornelius, Dan Peebles, Apu Kapadia, David Kotz, and Nikos Triandopoulos, "AnonymSense: A System for Anonymous Opportunistic Sensing," *Journal of Pervasive and Mobile Computing (PMC)*, Volume 7, Issue 1, pp. 16–30 (February 2011).

Patrick P. Tsang, Man Ho Au, Apu Kapadia, and Sean W. Smith, "BLAC: Revoking Repeatedly Misbehaving Anonymous Users Without Relying on TTPs," *ACM Transactions on Information and System Security (ACM TISSEC)*, Volume 13, Issue 4, Article 39, 33 pages (December 2010).

Annette C. Feng, Apu C. Kapadia, Wu-chun Feng, and Geneva G. Belford, "Packet Spacing: An Enabling Mechanism for Delivering Multimedia Content in Computational Grids," *The Journal of Supercomputing (JSC)*, 23(1):51–66 (2002), (*Invited paper*).

Peer-Reviewed Conference and Workshop Papers

Sonia Jahid, Shirin Nilizadeh, Prateek Mittal, Nikita Borisov, and Apu Kapadia, "DECENT: A Decentralized Architecture for Enforcing Privacy in Online Social Networks," To appear in 4th IEEE International Workshop on Security and Social Networking (**SESOC '12**), Lugano, Switzerland, Mar 19, 2012. Acceptance rate pending.

Sameer Patil, Yann Le Gall, Adam J. Lee, and Apu Kapadia, "My Privacy Policy: Exploring End-user Specification of Free-form Location Access Rules," To appear in Workshop on Usable Security (**USEC '12**), Bonaire, Mar 2, 2012. Acceptance rate pending.

Man Ho Au, Apu Kapadia, and Willy Susilo, "BLACR: TTP-Free Blacklistable Anonymous Credentials with Reputation," In Proceedings of the 19th Annual Network & Distributed System Security Symposium (**NDSS '12**), San Diego, CA, Feb 5–8, 2012. Acceptance rate 18%.

Huina Mao, Xin Shuai, and Apu Kapadia, "Loose Tweets: An Analysis of Privacy Leaks on Twitter," In Proceedings of the 2011 ACM Workshop on Privacy in the Electronic Society (**WPES '11**), pp. 1–11, Chicago, Illinois, October 17, 2011. Acceptance rate 16% (full papers).

Shirin Nilizadeh, Naveed Alam, Nathaniel Husted, and Apu Kapadia, "Pythia: A Privacy Aware, Peer-to-Peer Network for Social Search," In Proceedings of the 2011 ACM Workshop on Privacy in the Electronic Society (**WPES '11**), pp. 43–48, Chicago, Illinois, October 17, 2011. Acceptance rate 28%.

Roman Schlegel, Apu Kapadia, and Adam J. Lee, "Eyeing your Exposure: Quantifying and Controlling Information Sharing for Improved Privacy," In Proceedings of the 2011 Symposium on Usable Privacy and Security (**SOUPS '11**), Pittsburgh, PA, July 20–22, 2011.

Acceptance rate 30%.

Roman Schlegel, Kehuan Zhang, Xiaoyong Zhou, Mehool Intwala, Apu Kapadia, and XiaoFeng Wang, "Soundcomber: A Stealthy and Context-Aware Sound Trojan for Smartphones," In Proceedings of the 18th Annual Network and Distributed System Security Symposium (**NDSS '11**), pp. 17–33, San Diego, CA, February 69, 2011.

Acceptance rate 20%.

Emily K. Adams, Mehool Intwala, and Apu Kapadia, "MeD-Lights: A Usable Metaphor for Patient Controlled Access to Electronic Health Records," In Proceedings of the 1st ACM International Health Informatics Symposium (**IHI '10**), pp. 800–808, Arlington, VA, November 11–12, 2010.

Acceptance rate 48%.

Ruj Akavipat, Apurv Dhadphale, Apu Kapadia, and Matthew Wright, "ReDS: Reputation for Directory Services in P2P Systems," In Proceedings of the ACM CCS Workshop on Insider Threats (**WITS '10**), pp. 47–54, Chicago, IL, October 8, 2010.

Acceptance rate 50%.

Patrick P. Tsang, Man Ho Au, Apu Kapadia, and Sean W. Smith, "PEREA: Towards Practical TTP-Free Revocation in Anonymous Authentication," In Proceedings of The 15th ACM Conference on Computer and Communication Security (**CCS '08**), pp. 333–344, Alexandria, VA, October 2731, 2008.

Acceptance rate 18%.

Runner-up for PET Award, 2009: Outstanding Research in Privacy Enhancing Technologies

Katelin Bailey, Apu Kapadia, Linden Vongsathorn, and Sean W. Smith, "TwoKind Authentication: Protecting Private Information in Untrustworthy Environments," In Proceedings of The Seventh ACM Workshop on Privacy in the Electronic Society (**WPES '08**), pp. 39–43, Alexandria, VA, October 27, 2008.

Acceptance rate 36%.

Cory Cornelius, Apu Kapadia, David Kotz, Dan Peebles, Minh Shin and Nikos Triandopoulos, "AnonySense: Privacy-Aware People-Centric Sensing," In Proceedings of The Sixth ACM/USENIX International Conference on Mobile Systems, Applications, and Services (**MOBISYS '08**), pp. 211–224, Breckenridge, Colorado, June 17–20, 2008.

Acceptance rate 18%.

Apu Kapadia, Nikos Triandopoulos, Cory Cornelius, Daniel Peebles, and David Kotz, "AnonySense: Opportunistic and Privacy-Preserving Context Collection," In Proceedings of The Sixth International Conference on Pervasive Computing (**PERVASIVE '08**), pp. 280–297, Sydney, Australia, May 19–22, 2008. Springer-Verlag, LNCS 5013.

Acceptance rate 15%.

Apu Kapadia and Nikos Triandopoulos, "Halo: High-Assurance Locate for Distributed Hash Tables," In Proceedings of the 15th Annual Network and Distributed System Security Symposium (**NDSS '08**), pp. 61–79, San Diego, CA, February 10–13, 2008.

Acceptance rate 18%.

Patrick P. Tsang, Man Ho Au, Apu Kapadia, and Sean W. Smith, "Blacklistable Anonymous Credentials: Blocking Misbehaving Users without TTPs," In Proceedings of the 14th ACM Conference on Computer and Communication Security (**CCS '07**), pp. 72–81, Alexandria, VA, Oct 29–Nov 2, 2007.

Acceptance rate 18%.

Runner-up for PET Award, 2009: Outstanding Research in Privacy Enhancing Technologies

Peter C. Johnson, Apu Kapadia, Patrick P. Tsang, and Sean W. Smith, "Nymble: Anonymous IP-Address Blocking," In Proceedings of The Seventh International Symposium on Privacy Enhancing Technologies

(PET '07), pp. 113–133, Ottawa, Canada, June 20–22, 2007. Springer-Verlag, LNCS 4776.
Acceptance rate 20%.

Apu Kapadia, Prasad Naldurg, and Roy H. Campbell, “Distributed Enforcement of Unlinkability Policies: Looking Beyond the Chinese Wall,” In Proceedings of The Eighth IEEE Workshop on Policies for Distributed Systems and Networks (POLICY '07), pp. 141–150, Bologna, Italy, June 13–15, 2007.
Acceptance rate 45%.

Apu Kapadia, Tristan Henderson, Jeffrey Fielding, and David Kotz, “Virtual Walls: Protecting Digital Privacy in Pervasive Environments,” In Proceedings of The Fifth International Conference on Pervasive Computing (PERVASIVE '07), pp. 162–179, Toronto, Canada, May 13–16, 2007. Springer-Verlag, LNCS 4480.
Acceptance rate 16%.

Honorable Mention Award (Runner-up for Best Paper)

Apu Kapadia, Patrick P. Tsang and Sean W. Smith, “Attribute-Based Publishing with Hidden Credentials and Hidden Policies,” In Proceedings of The Fourteenth Annual Network and Distributed System Security Symposium (NDSS '07), pp. 179–192, San Diego, CA, February 28–March 2, 2007.
Acceptance rate 15%.

Apu Kapadia, Geetanjali Sampemane, and Roy H. Campbell, “KNOW Why Your Access Was Denied: Regulating Feedback for Usable Security,” In Proceedings of Eleventh ACM Conference on Computer and Communications Security (CCS '04), pp. 52–61, Washington DC, October 25–29, 2004.
Acceptance rate 14%.

Apu Kapadia, Prasad Naldurg, and Roy H. Campbell, “Routing with Confidence: Supporting Discretionary Routing Requirements in Policy Based Networks,” In Proceedings of Fifth IEEE International Workshop on Policies for Distributed Systems and Networks (POLICY '04), pp. 45–54, Yorktown Heights, New York, June 7–9, 2004.
Acceptance rate 38%.

Wu-chun Feng, Apu Kapadia, and Sunil Thulasidasan, “GREEN: Proactive Queue Management over a Best-Effort Network,” In Proceedings of IEEE Global Telecommunications Conference (GLOBECOM '02), 21(1):1784–1788, Taipei, Taiwan, November 17–21, 2002.
Acceptance rate 31%.

Jalal Al-Muhtadi, Roy H. Campbell, Apu Kapadia, Dennis Mickunas, and Seung Yi, “Routing Through the Mist: Privacy Preserving Communication in Ubiquitous Computing Environments,” In Proceedings of The 22nd IEEE International Conference on Distributed Computing Systems (ICDCS '02), pp. 74–83, Vienna, Austria, July 2–5, 2002.
Acceptance rate 18%.

Apu Kapadia, Annette Feng, and Wu-chun Feng, “The Effects of Inter-Packet Spacing on the Delivery of Multimedia Content,” In Proceedings of The 21st IEEE International Conference on Distributed Computing Systems (ICDCS '01), pp. 665–672, Phoenix, Arizona, April 16–19, 2001.
Acceptance rate 32%.

Other Refereed Conference and Workshop Papers

This section lists venues for which the acceptance rates were unavailable.

Apu Kapadia, Steven Myers, XiaoFeng Wang and Geoffrey Fox, “Toward securing sensor clouds,” In Proceedings of The 2011 International Symposium on Collaborative Technologies and Systems (CTS '11), pp. 280–289, Philadelphia, PA, May 23–27.
Acceptance rate *unavailable*.

Michael N. Gagnon, John Truelove, Apu Kapadia, Joshua Haines, and Orton Huang, "Towards Net-centric Cyber Survivability for Ballistic Missile Defense," 1st International Symposium on Architecting Critical Systems Federated (**ISARCS '10**), pp. 125–141, Prague, Czech Republic, June 23–25, 2010. Springer-Verlag, LNCS 6150.

Acceptance rate *unavailable*.

Apu Kapadia, Steven Myers, XiaoFeng Wang and Geoffrey Fox, "Secure Cloud Computing with Brokered Trusted Sensor Networks," In Proceedings of The 2010 International Symposium on Collaborative Technologies and Systems (**CTS '10**), pp. 581–592, Chicago, IL, May 17–21, 2010.

Acceptance rate *unavailable*.

Apu Kapadia, Jalal Al-Muhtadi, Roy H. Campbell, and Dennis Mickunas, "I-RBAC 2000: Secure Interoperability Using Dynamic Role Translation," In Proceedings of The First International Conference on Internet Computing (**IC '00**), pp. 231–238, Las Vegas, Nevada, June 26–29, 2000.

Acceptance rate *unavailable*.

Peer-Reviewed Poster Abstracts, Extended Abstracts, and Work-in-Progress Papers

Sameer Patil, Greg Norcie, Apu Kapadia, and Adam J. Lee, "'Check out where I am!': Location Sharing Motivations, Preferences, and Practices," To appear in Extended Abstracts of the ACM SIGCHI Conference on Human Factors in Computing Systems (**CHI EA '12**), Austin, TX, May 5–10, 2012.

Sameer Patil and Apu Kapadia, "Are You Exposed? Conveying Information Exposure (Extended Abstracts)," To appear in The 2012 ACM Conference on Computer Supported Cooperative Work (**CSCW '12**), Seattle, WA, USA, February 11–15, 2012.

Matthew Wright, Apu Kapadia, Mohan Kumar, and Apurv Dhadphale, "ReDS: Reputation for Directory Services in P2P Systems (Extended Abstract)," In Proceedings of the 6th Annual Cyber Security and Information Intelligence Research Workshop (**CSIIRW '10**), Oak Ridge, TN, April 21–23, 2010.

Fabeah Adu-Oppong, Casey K. Gardiner, Apu Kapadia, and Patrick P. Tsang, "Social Circles: Tackling Privacy in Social Networks (Poster Abstract)," Fourth Symposium on Usable Privacy and Security (**SOUPS '08**), Pittsburgh, Pennsylvania, July 23–25, 2008.

Minho Shin, Cory Cornelius, Daniel Peebles, Apu Kapadia, Patrick Tsang and David Kotz, "SenseRight: Reliable People-centric Sensing with Unreliable Participants (Poster Abstract)," The 6th ACM/USENIX International Conference on Mobile Systems, Applications, and Services (**MOBISYS '08**), Breckenridge, Colorado, June 17–20, 2008.

Katelin Bailey, Linden Vongsathorn, Apu Kapadia, Chris Masone, Sean W. Smith, "TwoKind Authentication: Usable Authenticators for Untrustworthy Environments (Poster Abstract)," In Proceedings of the Third Symposium on Usable Privacy and Security (**SOUPS '07**), pp. 169–170, Pittsburgh, Pennsylvania, July 18–20, 2007.

Patrick P. Tsang, Apu Kapadia, and Sean W. Smith, "Anonymous IP-Address Blocking in Tor with Trusted Computing (Work in Progress)," The Second Workshop on Advances in Trusted Computing (**WATC '06**), Tokyo, Japan, November 30–December 1, 2006.

Raquel Hill, Jalal Al-Muhtadi, Roy Campbell, Apu Kapadia, Prasad Naldurg, Anand Ranganathan, "A Middleware Architecture for Securing Ubiquitous Computing Cyber Infrastructures (Work in Progress)," ACM/IFIP/USENIX Fifth International Middleware Conference (**MIDDLEWARE '04**), Toronto, Canada, October 18th–22nd, 2004. Appears in IEEE Distributed Systems Online, 5(9), September 2004.

Invited Journal and Magazine Articles

Apu Kapadia, "A Case (Study) For Usability in Secure Email Communication," *IEEE Security and Privacy*, 5(2):80–84, March/April 2007.

Invited Conference and Workshop Papers

Apu Kapadia, David Kotz, and Nikos Triandopoulos, "Opportunistic Sensing: Security Challenges for the New Paradigm," In *The First International Conference on Communication Systems and Networks (COM-SNETS '09)*, Bangalore, India, January 5th–10th, 2009.

Theses

Apu Kapadia, "Models for Privacy in Ubiquitous Computing Environments," Ph.D. Thesis, University of Illinois at Urbana-Champaign, October 2005.

Apu Kapadia, "I-RBAC 2000: A Dynamic Role Translation Model For Secure Interoperability," M.S. Thesis, University of Illinois at Urbana-Champaign, May 2001.

Technical Reports

Sonia Jahid, Shirin Nilizadeh, Prateek Mittal, Nikita Borisov, and Apu Kapadia, "DECENT: A Decentralized Architecture for Enforcing Privacy in Online Social Networks," CoRR arXiv Technical Report arXiv:1111.5377v1, November 2011.

Patrick P. Tsang, Man Ho Au, and Apu Kapadia, "PEREA: Practical TTP-Free Revocation of Repeatedly Misbehaving Anonymous Users," Indiana University Technical Report TR688, July 2011.

Shirin Nilizadeh, Naveed Alam, Nathaniel Husted, and Apu Kapadia, "Pythia: A Privacy Aware, Peer-to-Peer Network for Social Search," Indiana University Technical Report TR687, October 2010.

Patrick P. Tsang, Apu Kapadia, Cory Cornelius, and Sean W. Smith, "Nymble: Blocking Misbehaving Users in Anonymizing Networks," Dartmouth Computer Science Technical Report 2008-637, December 2008.

Patrick P. Tsang, Man Ho Au, Apu Kapadia and Sean W. Smith, "BLAC: Revoking Repeatedly Misbehaving Anonymous Users Without Relying on TTPs," Dartmouth Computer Science Technical Report 2008-635, October 2008.

Katelin Bailey, Apu Kapadia, Linden Vongsathorn, and Sean W. Smith, "TwoKind Authentication: Protecting Private Information in Untrustworthy Environments (Extended Version)," Dartmouth Computer Science Technical Report TR2008-632, August 2008.

Patrick P. Tsang, Man Ho Au, Apu Kapadia, and Sean W. Smith, "Blacklistable Anonymous Credentials: Blocking Misbehaving Users without TTPs (Extended Version)," Dartmouth Computer Science Technical Report TR2007-601, September 2007.

Peter C. Johnson, Apu Kapadia, David Kotz, and Nikos Triandopoulos, "People-Centric Urban Sensing: Security Challenges for the New Paradigm," Dartmouth Computer Science Technical Report TR2007-586, Feb 2007.

Apu Kapadia, Prasad Naldurg, and Roy H. Campbell, "Distributed Enforcement of Unlinkability Policies: Looking Beyond the Chinese Wall," UIUC Technical Report UIUCDCS-R-2006-2689 (UILU-ENG-2006-1718), February 2006.

Apu Kapadia, Prasad Naldurg, and Roy H. Campbell, "Routing with Confidence: A Model for Trustworthy Communication," UIUC Technical Report UIUCDCS-R-2006-2680 (UILU-ENG-2006-1707), Jan 2006.

Apu Kapadia, Wu-chun Feng, and Roy H. Campbell, "GREEN: A TCP Equation-Based Approach to Active Queue Management," UIUC Technical Report: UIUCDCS-R-2004-2408/UILU-ENG-2004-1710, February 2004.

Invited Talks

“Soundcomber: A Stealthy and Context-Aware Sound Trojan for Smartphones”
Purdue University, December 2011.

“Halo: High-Assurance Searches in Peer-to-Peer Networks”
University of North Carolina, Chapel Hill, February 2010.
Naval Postgraduate School, April 2009.
Indiana University, March 2009.
New Jersey Institute of Technology, February 2009.

“Accountable Anonymity”
George Mason University, July 2008.
MIT Lincoln Laboratory, June 2008.
IBM Zurich, May 2008.
Harvard University, April 2008.
Rochester Institute of Technology, April 2008.
Johns Hopkins University, March 2008.
University of Massachusetts Lowell, February 2008.
George Washington University, February 2008.
Towson University, February 2008.

“Nymble: Anonymous IP-Address Blocking”
Indiana University, March 2009.
Microsoft Research India, Bangalore, August 2007.

“Attribute-Based Publishing with Hidden Credentials and Hidden Policies”
Microsoft Research India, Bangalore, August 2007.

“KNOW Why Your Access Was Denied: Usable Security in Ubiquitous Computing”
DOE High-Performance Computer Science Fellowship Conference, June 2005.
Presented by Geetanjali Sampemane and Apu Kapadia at CU Infosec, December 2004.

“Routing with Confidence: Supporting User Discretion in Policy Based Networks”
DOE High-Performance Computer Science Fellowship Conference, July 2004.

“Latency Based Triangulation—Augmenting Application Layer Multicast”
Outstanding Class Project, First Annual Illinois Computer Systems Symposium (iCSS), 2002.

Talks at Conferences and Workshops

“TwoKind Authentication: Protecting Private Information in Untrustworthy Environments,”
Seventh ACM Workshop on Privacy in the Electronic Society (WPES '08), Alexandria, VA, October 2008

“AnonySense: Opportunistic and Privacy-Preserving Context Collection”
Sixth International Conference on Pervasive Computing (PERVASIVE '08), Sydney, Australia, May 2008.

“Nymble: Anonymous IP-Address Blocking”
Seventh Privacy Enhancing Technologies Symposium (PETS '07), Ottawa, Canada, June 2007.

“Distributed Enforcement of Unlinkability Policies: Looking Beyond the Chinese Wall”
Eighth IEEE Workshop on Policies for Distributed Systems and Networks (POLICY '07), Bologna, Italy, June 2007.

“Virtual Walls: Protecting Digital Privacy in Pervasive Environments”

Fifth International Conference on Pervasive Computing (PERVASIVE '07), Toronto, Canada, May 2007.

“Attribute-Based Publishing with Hidden Credentials and Hidden Policies”

Fourteenth Annual Network and Distributed System Security Symposium (NDSS '07), San Diego, CA, February/March 2007.

“Anonymous IP-Address Blocking in Tor with Trusted Computing (Work in Progress)”

Second Workshop on Advances in Trusted Computing (WATC '06), Tokyo, Japan, November/December 2006.

“Routing with Confidence: Supporting User Discretion in Policy Based Networks”

Fifth IEEE International Workshop on Policies for Distributed Systems and Networks (POLICY 2004), Yorktown Heights, New York, June 2004.

“GREEN: Proactive Queue Management over a Best-Effort Network”

IEEE Global Telecommunications Conference (GLOBECOM 2002), Taipei, Taiwan, November 2002.

“I-RBAC 2000: Secure Interoperability Using Dynamic Role Translation”

First International Conference on Internet Computing (IC 2000), Las Vegas, Nevada, June 2000.

Professional Activities

Memberships

Member of Association for Computing Machinery (ACM), SigSAC
The Institute of Electrical and Electronics Engineers (IEEE), Computer Society

NSF Review Panels

Years: 2011

Session Chairs

Wild Woolly Web, ACM Conference on Computer and Communications Security (CCS), 2011
Network and System Privacy, ACM Workshop on Privacy in the Electronic Society (WPES), 2011
Privacy Attacks, Risks, Countermeasures, ACM Workshop on Privacy in the Electronic Society (WPES), 2010
Anonymization, ACM Conference on Computer and Communications Security (CCS), 2009
Location Privacy, ACM Workshop on Privacy in the Electronic Society (WPES), 2008
Privacy in distributed systems, ACM Workshop on Privacy in the Electronic Society (WPES), 2007
Grid and Trusted Domain, Workshop on Advances in Trusted Computing (WATC), 2006

Organizing committees

Workshop Co-chair, ACM Conference on Computer and Communications Security (CCS), 2012

Program Committees

2012

International Conference on Trust and Trustworthy Computing (TRUST), 2012
Symposium On Usable Privacy and Security (SOUPS), 2012
Australasian Conference on Information Security and Privacy (ACISP), 2012
International Workshop on Security and Privacy in Spontaneous Interaction and Mobile Phone Use (IWSSI/SPMU), 2012

2011

ACM Conference on Computer and Communications Security (CCS), 2011
International Conference on Applied Cryptography and Network Security (ACNS), 2011
ACM Symposium on Information, Computer and Communications Security (ASIACCS), 2011
Annual Computer Security Applications Conference (ACSAC), 2011
International Workshop on Security and Privacy in Spontaneous Interaction and Mobile Phone Use (IWSSI/SPMU), 2011

2010

ACM CCS Workshop on Insider Threats (WITS), 2010
ACM Workshop on Privacy in the Electronic Society (WPES), 2010
ACM Conference on Computer and Communications Security (CCS), 2010
International Conference on Distributed Computing Systems (ICDCS), 2010
Second International Workshop on Security and Privacy in Spontaneous Interaction and Mobile Phone Use (IWSSI/SPMU), 2010
International Privacy Enhancing Technologies Symposium (PETS), 2010
Security and Privacy Track at the International World Wide Web Conference (WWW), 2010
Privacy on the Web, Technical Track at ACM Symposium on Applied Computing (SAC), 2010

2009

International Workshop on Data Privacy Management (DPM), 2009
ACM Conference on Computer and Communications Security (CCS), 2009
IEEE International Conference on Privacy, Security, Risk and Trust (PASSAT), 2009
International Privacy Enhancing Technologies Symposium (PETS), 2009

2008

ACM Workshop on Privacy in the Electronic Society (WPES), 2008
International Privacy Enhancing Technologies Symposium (PETS), 2008
IEEE International Conference on Sensor Networks, Ubiquitous and Trustworthy Computing (SUTC), 2008

2007

ACM Workshop on Privacy in the Electronic Society (WPES), 2007
International Workshop on the Value of Security through Collaboration (SECOVAL), 2007
IEEE International Workshop on Trust, Security, and Privacy for Ubiquitous Computing (TSPUC), 2007

2006

International Conference on Computer Communications and Networks (ICCCN), 2006

Reviewer (Partial Listing)

Journals

ACM Transactions on Information and System Security (TISSEC)
Journal of Computer Security (JCS)
IEEE Transactions on Dependable and Secure Computing (TDSC)
IEEE Security and Privacy Magazine
ACM Computing Surveys
IEEE Magazine
IEEE Transactions on Multimedia
IEEE Transactions on Mobile Computing (TMC)
IEEE Pervasive
Elsevier Ad Hoc Networks Journal (ADHOC)
Elsevier Pervasive and Mobile Computing Journal (PMC)
Elsevier Computer Networks, Journal of Computer and Telecommunications Networking
Elsevier Journal of Systems and Software
Journal of Zhejiang University SCIENCE (JZUS)

Conferences and Workshops

The Eighth International Conference on Pervasive Computing
ACM Computer and Communications Security (CCS)
ACM Conference on Object-Oriented Programming Systems, Languages and Applications (OOPSLA)
ACM/USENIX International Conference on Mobile Systems, Applications, and Services (MobiSys)
ACM International Conference on Mobile Computing and Networking (MobiCom)
IEEE International Conference on Distributed Computing Systems (ICDCS)
IEEE International Conference on Communication Systems (ICCS)
ISOC Network and Distributed System Security Symposium (NDSS)
IFIPTM Joint iTrust and PST Conferences on Privacy, Trust Management and Security
International Workshop on Security for Spontaneous Interaction (IWSSI)
European PKI Workshop (EuroPKI)

Other Professional Activities

Affiliate of the Alliance for the Advancement of African-American Researchers in Computing (A4RC)

Co-organizer of ISTS Summer Cryptography Workshop (*Instructor: Patrick P. Tsang*),

Dartmouth College, 2006

Fellowships, Awards, and Admissions Committee

Department of Computer Science, University of Illinois at Urbana-Champaign, 2002

Volunteering

Pattern Languages of Programs Conference (PLoP '99)

Graduate Student Recruiting Campus Tours, University of Illinois at Urbana-Champaign

Peer Advising

Tau Beta Pi

Other Activities and Interests

Photography

With photos published in the book *Mumbai Masti*, by Bachi Karkaria and Krsna Mehta, and in online articles at Schmap Italy and Acqua Panna.

Languages—English (native), Spanish (4 semesters), Hindi (fluent), Gujarati (fluent at speaking), Marathi (fair speaking knowledge)