

Saikat Guha

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“Vigyan”, #9 Lavelle Rd., Bangalore, India 560025

RESEARCH INTERESTS

Networked systems with particular interests in online advertising, mobile systems, privacy and security issues therein, and ancillary interests in social networks, and P2P systems.

EDUCATION

Ph.D. in Computer Science, Cornell University, Aug. 2009

Advisor: Paul Francis

Dissertation: “Chasing EME: Arguments for an End-Middle-End Internet”

B.S. (*magna cum laudé*) in Computer Science, Cornell University, May 2003

GPA: 3.96/4.0

transferred from Indian Institute of Technology (IIT), Delhi; CGPA: 8.9/10.0

EMPLOYMENT

Microsoft Research India, Bangalore, India

- Researcher: Feb. 2010 – present

Max Planck Institute for Software Systems, Kaiserslautern, Germany

- Postdoctoral Researcher: Jul. 2009 – Feb. 2010

Summer Internships

- Max Planck Institute for Software Systems (with Krishna Gummadi): Summer 2008
- Google Inc. (Security Group): Summer 2007
- Microsoft Research Cambridge (with Pablo Rodriguez): Summer 2006
- DoCoMo Labs USA (with Neil Daswani): Summer 2005

PUBLICATIONS

Refereed Conference Publications and Book Chapters

- S. Guha, M. Jain, V. Padmanabhan, “Koi: A Location-Privacy Platform for Smartphone Apps,” in *Proceedings of the 9th Symposium on Networked Systems Design and Implementation (NSDI)*, San Jose, Apr. 2012.
- A. Reznichenko, S. Guha, and P. Francis, “Auctions in Do-Not-Track Compliant Internet Advertising,” in *Proceedings of the 18th ACM Conference on Computer and Communications Security (CCS)*, Chicago, Oct. 2011.
- S. Guha, B. Cheng and P. Francis, “Privad: Practical Privacy in Online Advertising,” in *Proceedings of the 8th Symposium on Networked Systems Design and Implementation (NSDI)*, Boston, Mar. 2011.
- S. Guha, B. Cheng and P. Francis, “Challenges in Measuring Online Advertising Systems,” in *Proceedings of the 2010 Internet Measurement Conference (IMC)*, Melbourne, Australia, Nov. 2010.
- M. Dischinger, M. Marcon, S. Guha, K. Gummadi, R. Mahajan and S. Saroiu, “Glasnost: Enabling End Users to Detect Traffic Differentiation,” in *Proceedings of the 7th Symposium on Networked Systems Design and Implementation (NSDI)*, San Jose, CA, Apr. 2010.
- S. Guha, J. Chandrasekhar, N. Taft and K. Papagiannaki, “How Healthy are Today’s Enterprise Networks?,” in *Proceedings of the 2008 Internet Measurement Conference (IMC)*, Vouliagmeni, Greece, Oct. 2008.
- S. Guha and P. Francis, “An End-Middle-End Approach to Connection Establishment,” in *Proceedings of 2007 Conference of the Special Interest Group on Data Communication (SIGCOMM)*, Kyoto, Japan, Aug. 2007.

- S. Annapureddy, S. Guha, C. Gkantsidis, D. Gunawardena and P. Rodriguez. “Is High-Quality VoD Feasible using P2P Swarming?,” in *Proceedings of the 16th International World Wide Web Conference (WWW)*, Banff, Canada, May 2007.
- S. Guha and P. Francis, “Characterization and Measurement of TCP Traversal through NATs and Firewalls,” in *Proceedings of the 2005 Internet Measurement Conference (IMC)*, Berkeley, CA, Oct. 2005.
- S. Guha, R. Murty, and E. G. Sirer, “Sextant: A Unified Node and Event Localization Framework Using Non-Convex Constraints,” in *Proceedings of the 6th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc)*, Urbana-Champaign, IL, May 2005.
- C. Botev et al., “Supporting Workflow in a Course Management System,” in *Proceedings of the 2005 Technical Symposium of Computer Science Education (SIGCSE)*, St. Louis, MO, Feb. 2005.
- K. P. Birman, S. Guha, and R. Murty, *Advances in Pervasive Computing and Networking*. Kluwer Academic Press, Fall 2004, Chapter: Scalable, Self-Organizing Technology for Sensor Networks.

Refereed Workshop and Symposium Publications

- S. Guha, A. Reznichenko, K. Tang, H. Haddadi and P. Francis, “Serving Ads from localhost for Performance, Privacy, and Profit,” in *Proceedings of the 8th Workshop on Hot Topics in Networks (HotNets)*, New York, NY, Oct. 2009.
- S. Guha, K. Tang and P. Francis, “NOYB: Privacy in Online Social Networks,” in *Proceedings of the 1st ACM SIGCOMM Workshop on Online Social Networks (WOSN)*, Seattle, WA, Aug. 2008.
- B. Wong and S. Guha, “Quasar: A Probabilistic Publish-Subscribe System for Social Networks,” in *Proceedings of the 7th International Workshop on Peer-to-Peer Systems (IPTPS)*, Tampa Bay, FL, Feb. 2008.
- S. Guha and P. Francis, “Identity Trail: Covert Surveillance Using DNS,” in *Proceedings of the 7th International Symposium on Privacy Enhancing Technologies (PET)*, Ottawa, Canada, Jun. 2007.
- S. Annapureddy, S. Guha, C. Gkantsidis, D. Gunawardena and P. Rodriguez. “Exploring VoD in P2P Swarming Systems,” in *Proceedings of the 2007 INFOCOM Mini Symposiums*, Anchorage, AK, May 2007.
- S. Guha, N. Daswani, and R. Jain, “An experimental study of the skype peer-to-peer voip system,” in *Proceedings of the 5th International Workshop on Peer-to-Peer Systems (IPTPS)*, Santa Barbara, CA, Feb. 2006.
- S. Guha, Y. Takeda, and P. Francis, “NUTSS: A SIP-based Approach to UDP and TCP Network Connectivity,” in *Proceedings of the 2004 ACM SIGCOMM Workshop on Future Directions in Network Architecture*, Portland, OR, Aug. 2004, pp. 43–48.

Thesis

- S. Guha, “Chasing EME: Arguments for an End-Middle-End Internet,” Cornell University, Ph.D. Thesis, Ithaca, NY, Aug. 2009.

RFCs

- P. Srisuresh, B. Ford, S. Sivakumar and S. Guha, “RFC5508 — NAT Behavioral Requirements for ICMP,” Apr. 2009.
- S. Guha, K. Biswas, B. Ford, S. Sivakumar and P. Srisuresh, “RFC5382 — NAT Behavioral Requirements for TCP,” Oct. 2008.

Patents

- S. Guha, R. Bhaskar, S. Laxman, P. Naldurg, “Patent — Transparent Virtual Currency Using Verifiable Tokens,” Filed Jun 2011.
- S. Guha, M. Jain, V. Padmanabhan, “Patent — Privacy Preserving Matching Service,” Filed Jun 2011.

- S. Guha, M. Jain, A. Jain, V. Padmanabhan, “Patent — Privacy Preserving Platform,” Filed May 2011.
- P. Francis, S. Guha, “Patent US 2011/0252226 A1 — Preserving User Privacy in Response to User Interactions,” Filed Apr. 2010.
- P. Francis, S. Guha and H. Haddadi, “Patent US 2011/0055552 A1 — Private, Accountable, and Personalized Information Delivery in a Networked System,” Filed Sep. 2009.

TEACHING EXPERIENCE

Instructor, Cornell University

- Introduction to C (Fall 2006, Spring 2007, Fall 2008), *student evaluation: 5/5*
- Operating Systems Practicum (Fall 2005), *outstanding TA award*

Teaching Assistant, Cornell University

- Computer Architecture (Fall 2008), *student evaluation: 4.58/5, outstanding TA award*
- Functional Programming and Data Structures (Spring 2004)
- Intermediate Computer Systems (Fall 2003), *student evaluation: 5/5*

Undergraduate Consultant, Cornell University

- Functional Programming and Data Structures (Spring 2002, Fall 2002, Spring 2003)

INVITED TALKS

Visits and Summits

- “Serving Ads from localhost for Performance, Privacy, and Profit,” *UCSD* (Mar.’11), *UCLA* (Mar.’11), *Harvard* (Mar.’11), *National University of Singapore* (Oct.’10), *Microsoft Research Silicon Valley* (Jul.’10), *Telefonica I&D* (Dec.’09), *Microsoft Research Cambridge* (Dec.’09), *Microsoft Research Redmond* (Oct.’09), *Electronic Frontier Foundation* (Oct.’09), *Google Inc.* (Oct.’09)
- “On End-Middle-End Connection Establishment in the Internet,” *AT&T Labs Research* (Mar.’09), *Telefonica I&D* (Feb.’09), *Microsoft Research India* (Feb.’09)
- “ShutUp: End-to-End Containment of Unwanted Traffic,” *Telefonica I&D* (Jul.’08)
- “An Endhost Perspective Into Today’s Enterprise Networks,” *Thomson Labs* (Jul.’08)
- “Using Off-Path and On-Path Signaling for Internet Security,” *IRTF EME Research Group* (Jul.’06)
- “NAT Behavioral Requirements for TCP,” *IETF BEHAVE Working Group* (Jul.’06, Mar.’06, Nov.’05)
- “Characterization and Measurement of TCP Traversal Through NATs and Firewalls,” *Microsoft Research Redmond* (Nov.’05)

Conference and Workshop Talks

- “Koi: A Location-Privacy Platform for Smartphone Apps,” *NSDI ’12*
- “Privad: Practical Privacy in Online Advertising,” *NSDI ’11*
- “Challenges in Measuring Online Advertising Systems,” *IMC ’10*
- “Serving Ads from localhost for Performance, Privacy, and Profit,” *HotNets ’09*
- “How Healthy are Today’s Enterprise Networks?,” *IMC ’08*
- “Dear Facebook, My Data is None of Your Business,” *WOSN ’08*
- “Quasar: A Probabilistic Publish-Subscribe System for Social Networks,” *IPTPS ’08*
- “NUTSS: An End-Middle-End Approach to Connection Establishment,” *SIGCOMM ’07*
- “Identity Trail: Covert Surveillance Using DNS,” *PET ’07*
- “An Experimental Study of the Skype Peer-to-Peer VoIP System,” *IPTPS ’06*
- “Characterization and Measurement of TCP Traversal through NATs and Firewalls,” *IMC ’05*
- “Sextant: A Unified Node and Event Localization Framework Using Non-Convex Constraints,” *Mobi-Hoc ’05*

SERVICE

Co-Chair

- Workshop on Internet Tracking, Advertising, and Privacy (WiTAP): 2011
- Microsoft Research India Summer School on Security and Privacy: 2011

Program Committee Member

- Passive and Active Measurement Conference (PAM): 2011
- Internet Measurement Conference (IMC): 2010
- Protocols for Future, Large-Scale and Diverse Network Transports (PFLDNeT): 2010
- International Conference on Computer Communications and Networks (ICCCN): 2009

Reviewer

- Transactions on Networking (TON): 2010, 2011
- Computer Communication Review (CCR): 2008, 2010
- Transactions on Information and System Security (TISSEC): 2010
- Computer Networks Journal (COMNET): 2009
- Transactions on the Web (TWEB): 2009
- Computer Communications (COMCOM): 2009
- International Journal of Communication Systems (IJCS): 2009

PRESS COVERAGE

Online Media

- On Facebook outing gay users to advertisers. *New York Times, CNN, Washington Post, MSNBC, Fox News, CBS, Wired News, Slashdot, ArsTechnica, Huffington Post, IDG News Service, etc.* (Oct. '10)

AWARDS AND HONORS

Cornell University

- Outstanding TA Award (Dept. of Computer Science): Fall 2005, Fall 2008
- Berman Prize (Dept. of Engineering Communications): Fall 2001
- Dean's List (College of Engineering): Fall 2001, Spring 2002, Fall 2002, Spring 2003

PARTICULARS

Citizen of India

REFERENCES

Available upon request.