Bimal Viswanath

Postdoctoral Scholar

University of California Santa Barbara
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Research interests

Data-driven security and privacy; Data mining; Machine learning; Measurement and analysis of networked systems

Education

2008–2016 **Doctor of Philosophy in Computer Science**
Saarland University and Max Planck Institute for Software Systems (MPI-SWS), Saarbruecken, Germany
Advisors: Prof. Krishna P. Gummadi, Prof. Alan Mislove
Thesis: *Towards Trustworthy Social Computing Systems*

2005–2008 **Master of Science in Computer Science and Engineering**
Indian Institute of Technology Madras, Chennai, India
Advisor: Prof. C. Siva Ram Murthy
Thesis: *A Stochastic Model for TCP over Optical Burst Switching Networks*

2001–2005 **Bachelor of Technology in Computer Science and Engineering**
Cochin University of Science and Technology, Cochin, India

Employment History

2017–Present **External Postdoctoral Researcher**
University of Chicago, Chicago, IL, USA
Research topic: Systems and Network Security

2016–Present **Postdoctoral Scholar**
University of California Santa Barbara, Santa Barbara, CA, USA
Research topic: Systems and Network Security

2015–2016 **Researcher**
Nokia Bell Labs, Stuttgart, Germany
Research topic: Cloud Computing, Data Analytics

2008–2015 **Ph.D. Candidate**
Max Planck Institute for Software Systems, Kaiserslautern/Saarbruecken, Germany
Research topic: Security and Privacy in Social Computing Systems

2005-2008 **Graduate Student**
Indian Institute of Technology Madras, Chennai, India
Research topic: Optical Burst Switching Networks

Publications

Total Citations: 2669, H-Index: 13 (Source: Google Scholar as of November 2017)

CoNEXT'17 **Towards Reliable Application Deployment in the Cloud**
Ruichuan Chen, Istemi Ekin Akkus, Bimal Viswanath, Ivica Rimac and Volker Hilt
CoNEXT, Seoul, South Korea, December 2017

Middleware'17 **Sieve: Actionable Insights from Monitored Metrics in Distributed Systems**
Jörg Thalheim, Antonio Rodrigues, Istemi Ekin Akkus, Pramod Bhatotia, Ruichuan Chen, Bimal Viswanath, Lei Jiao, Christof Fetzer
Middleware, Las Vegas, NV, USA, December 2017

IMC'17 **Complexity vs. Performance: Empirical Analysis of Machine Learning as a Service**
Yuanshun Yao, Zhujun Xiao, Bolun Wang, Bimal Viswanath, Haitao Zheng and Ben Y. Zhao
IMC, London, UK, November 2017

CCS'17 **Automated Crowdturfing Attacks and Defenses in Online Review Systems**
Yuanshun Yao, Bimal Viswanath, Jenna Cryan, Haitao Zheng and Ben Y. Zhao
CCS, Dallas, TX, USA, October 2017

WWW'16 **Strengthening Weak Identities Through Inter-Domain Trust Transfer**
Giridhari Venkatadri, Oana Goga, Changtao Zhong, Bimal Viswanath, Krishna P. Gummadi and Nishanth Sastry
WWW, Montreal, Canada, April 2016

COSN'15 **Strength in Numbers: Robust Tamper Detection in Crowd Computations**
Bimal Viswanath, M. Ahmad Bashir, M. Bilal Zafar, Simon Bouget, Saikat Guha, Krishna P. Gummadi, Aniket Kate, and Alan Mislove
COSN, Stanford University, CA, USA, November 2015

USENIX Security'14 **Towards Detecting Anomalous User Behavior in Online Social Networks**
Bimal Viswanath, Muhammad Ahmad Bashir, Mark Crovella, Saikat Guha, Krishna P. Gummadi, Balachander Krishnamurthy and Alan Mislove
USENIX Security, San Diego, CA, USA, August 2014

SOUPS'14 **Understanding and Specifying Social Access Control Lists**
Mainack Mondal, Yabing Liu, Bimal Viswanath, Krishna P. Gummadi and Alan Mislove
SOUPS, Menlo Park, CA, USA, July 2014

CoNEXT'12 **Defending Against Large-scale Crawls in Online Social Networks**
Mainack Mondal, Bimal Viswanath, Allen Clement, Peter Druschel, Krishna P. Gummadi, Alan Mislove, and Ansley Post
CoNEXT, Nice, France, December 2012

WOSN'12 **Keeping Information Safe from Social Networking Apps**
Bimal Viswanath, Emre Kıcıman, and Stefan Saroiu
WOSN, Helsinki, Finland, August 2012

EuroSys'12 **Canal: Scaling Social Network-based Sybil Tolerance Schemes**
Bimal Viswanath, Mainack Mondal, Krishna P. Gummadi, Alan Mislove, and Ansley Post
EuroSys, Bern, Switzerland, April 2012

WWW'12 **Understanding and Combating Link Farming in the Twitter Social Network**
Saptarshi Ghosh (*co-primary author*), Bimal Viswanath (*co-primary author*), Farshad Kooti, Naveen Kumar Sharma, Korlam Gautam, Fabricio Benevenuto, Niloy Ganguly, and Krishna P. Gummadi
WWW, Lyon, France, April 2012

COMSNETS'12 **Exploring the Design Space of Social Network-based Sybil Defenses** (*Invited Paper*)
Bimal Viswanath, Mainack Mondal, Allen Clement, Peter Druschel, Krishna P. Gummadi, Alan Mislove, and Ansley Post
COMSNETS, Bangalore, India, January 2012

2011	**A Stochastic Model for the Behavior of Multiple TCP NewReno Sources over Optical Burst Switching Network** Bimal Viswanath, T. Venkatesh, C. Siva Ram Murthy Photonic Network Communications, October 2011
NOSSDAV'11	**Sharing Social Content from Home: A Measurement-driven Feasibility Study** Massimiliano Marcon, Bimal Viswanath, Meeyoung Cha, and Krishna P. Gummadi NOSSDAV, Vancouver, Canada, June 2011
SIGCOMM'10	**An Analysis of Social Network-based Sybil Defenses** Bimal Viswanath, Ansley Post, Krishna P. Gummadi, and Alan Mislove SIGCOMM, New Delhi, India, August 2010
WSDM'10	**You Are Who You Know: Inferring User Profiles in Online Social Networks** Alan Mislove, Bimal Viswanath, Krishna P. Gummadi, and Peter Druschel WSDM, New York, NY, February 2010
WOSN'09	**On the Evolution of User Interaction in Facebook** Bimal Viswanath, Alan Mislove, Meeyoung Cha, and Krishna P. Gummadi WOSN, Barcelona, Spain, August 2009
GLOBECOM'07	**A Markov Chain Model for TCP NewReno over Optical Burst Switching Networks** Bimal Viswanath, T. Venkatesh, and C. Siva Ram Murthy GLOBECOM, Washington D.C, November 2007

Professional Activities

Technical Program Committees

2018	COMSNETS, International Conference on COMmunication Systems & NETworkS
2017	ICWSM, AAAI International Conference on Web and Social Media
2016	ICWSM, AAAI International Conference on Web and Social Media
2016	COMSNETS, International Conference on COMmunication Systems & NETworkS
2015	ICWSM, AAAI International Conference on Web and Social Media
2015	Social Networking Workshop at COMSNETS

Honors and Awards

2015	Best Paper Award, ACM Conference on Online Social Networks (COSN)
2014	Distinguished Paper Award, Symposium on Usable Privacy and Security (SOUPS)
2013	Institutional nominee (MPI-SWS), Google European Doctoral Fellowship

Patents

2016	**Method Of And Device For Deploying An Application Reliably In A Computer Network** Ruichuan Chen, Bimal Viswanath, Istemi Ekin Akkus, Ivica Rimac, and Volker Hilt Europe 01380478EP, Filed May 2016. Patent pending
2016	**Method Of And Device For Determining Reliability in A Computer Network** Istemi Ekin Akkus, Ivica Rimac, Ruichuan Chen, Bimal Viswanath, and Volker Hilt Europe 013804077EP, Filed May 2016. Patent pending

Teaching Experience

2013	**Instructor**, Readings in Social Computing Systems, Saarland University, Summer 2013

2009	**Teaching Assistant**, Operating Systems, Saarland University, Summer 2009
2007	**Teaching Assistant**, Performance Evaluation of Computer Systems, IIT Madras, July-November 2007
2006	**Teaching Assistant**, Performance Evaluation of Computer Systems, IIT Madras, July-November 2006
2006	**Teaching Assistant**, Network Management Systems, IIT Madras, January-May 2006
2006	**Teaching Assistant**, Computational Engineering, IIT Madras, January-May 2006
2005	**Teaching Assistant**, Computational Engineering, IIT Madras, July-November 2005

Advising

Research Intern at Nokia Bell Labs: Jörg Thalheim (TU Dresden, Germany)

Research Interns at MPI-SWS: Advait Alai (IIT Madras, India), M. Ahmad Bashir (LUMS, Pakistan), Simon Bouget (IRISA/INRIA Rennes – Bretagne Atlantique, France)

References

○ **Prof. Ben Y. Zhao**
Neubauer Professor of Computer Science, University of Chicago
ravenben@cs.uchicago.edu

○ **Prof. Krishna P. Gummadi**
Head, Networked Systems Research Group, Max Planck Institute for Software Systems
gummadi@mpi-sws.org

○ **Prof. Alan Mislove**
Associate Professor of Computer Science, Northeastern University
amislove@ccs.neu.edu

○ **Prof. Peter Druschel**
Scientific Director, Max Planck Institute for Software Systems
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