Vaibhav Bajpai

| CONTACT INFORMATION | Computer Networks and Distributed Systems
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PROFESSIONAL EXPERIENCE

Jacobs University Bremen, Germany   Dec 2012—Present
Research Associate

— *Leone FP7 EU Project: From Global Measurements to Local Management*
— *Flamingo FP7 EU Project: Management of the Future Internet*

Jacobs University Bremen, Germany   Feb 2011—Aug 2012
Student & Teaching Assistant

— *Implementation of the Network Flow Query Language (NFQL)*
— *Software Engineering Lab, Spring* 2012
— *Networks and Protocols & Algorithms and Data Structures, Fall* 2011
— *Machine Vision Project, Spring* 2011

Infosys Technologies Ltd, Bangalore, India   Jul 2009—Jun 2010
Systems Engineer

— *Certified, Infosys Mainframe Foundation Developer,* PR — 101
— *Felicitated as the top entry-level candidate after industrial training* (*GPA 5/5*)

EDUCATION

Jacobs University Bremen, Germany   Sep 2012—Present
Doctor of Philosophy, Computer Science

— *Dissertation title: Understanding the Impact of Network Infrastructure Changes using Large-Scale Measurement Platforms*
— *Dissertation work under the guidance of Prof. Dr. Jürgen Schönwälder*

Jacobs University Bremen, Germany   Sep 2010—Aug 2012
Master of Science, Computer Science

— *Masters Thesis: A complete system integration of the network flow query language, under the guidance of Prof. Dr. Jürgen Schönwälder*
— *Graduated with a* 1.0 *grade on the masters thesis,* 1.64 *overall GPA*
— *Merit-based tuition scholarship and stipend for the entire duration*

Uttar Pradesh Technical University, India   Aug 2005—Jun 2009
Bachelor of Technology, Computer Science and Engineering

— *Bachelors Project: Dexter, A social experience on top of google search results, under the guidance of Prof. Sanjeev Pippal*
— *Graduated as the top student of the class* (80.84%)
— *Merit position* 9th *amongst all freshmen encompassing* 600 *affiliated colleges*

Kendriya Vidyalaya Aliganj, India   Mar 2003—Mar 2005
Central Board of Secondary Education

— *Graduated as the top student of the class (*3rd *in city) in XII* (93.4%)
— *Merit certificate for* 100% *marks in Computer Science in XII*
— *Graduated as the top student of the class in X* (86.0%)
— *Merit certificate for* 100% *marks in Science in X (felicitated by the State Govt)*
— *All-India merit position* 35th *in Junior Mathematics Olympiad,* 2002.

PUBLICATIONS	Vaibhav Bajpai, Jürgen Schönwälder: Measuring TCP Connection Establishment Times of Dual-Stacked Web Services, *9th International Conference on Network and Service Management (CNSM)*, Zürich, October 2013.
	Vaibhav Bajpai, Jürgen Schönwälder: Understanding the Impact of Network Infrastructure Changes using Large-Scale Measurement Platforms, *7th International Conference on Autonomous Infrastructure, Management and Security (AIMS)*, Barcelona, June 2013. http://dx.doi.org/10.1007/978-3-642-38998-6_5
	Vaibhav Bajpai, Johannes Schauer, Jürgen Schönwälder: NFQL: A Tool for Querying Network Flow Records, *13th IEEE International Symposium on Integrated Network Management (IM)*, Ghent, May 2013. http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=6573045
	Vaibhav Bajpai, Vitali Bashko, Catalin David, Siarhei Kuryla, Vladislav Perelman, Johannes Schauer, Nikolay Melnikov, Anuj Sehgal, Jürgen Schönwälder: Design and Prototype Implementation of the WattsApp Telemetry Platform, *IEEE International Conference on Internet of Things (iThings)*, Besançon, November 2012. http://dx.doi.org/10.1109/GreenCom.2012.21
	Vaibhav Bajpai and Vladislav Perelman: A Cross-Platform Open Source 3D Object Reconstruction System using a Laser Line Projector, *3rd IEEE Germany Student Conference (GSC)*, Passau, November 2012.
	Vaibhav Bajpai, Nikolay Melnikov, Anuj Sehgal, Jürgen Schönwälder: Flow-based Identification of Failures Caused by IPv6 Transition Mechanisms, *6th Conference on Autonomous Infrastructure, Management and Security (AIMS)* Luxembourg, June 2012. http://dx.doi.org/10.1007/978-3-642-30633-4_19
INTERNET DRAFTS	Marcelo Bagnulo, Trevor Burbridge, Sam Crawford, Jürgen Schönwälder and Vaibhav Bajpai, Large MeAsurement Platform Protocol: `draft-bagnulo-lmap-http`, Internet Draft, July 2013. http://tools.ietf.org/html/draft-bagnulo-lmap-http-00
	Vaibhav Bajpai and Jürgen Schönwälder, Measuring the Effects of Happy Eyeballs: `draft-bajpai-happy`. Internet Draft, July 2013. http://tools.ietf.org/html/draft-bajpai-happy-01
TECHNICAL ARTICLES	Evaluating the Effectiveness of Happy Eyeballs, *RIPE Labs Article*, June 2013. https://labs.ripe.net/Members/vaibhav_bajpai/evaluating-the-effectiveness-of-happy-eyeballs
PHD PROPOSAL	Understanding the Impact of Network Infrastructure Changes using Large-Scale Measurement Platforms, PhD Proposal, September 2013.
MASTERS THESIS	F(v2): A Complete System Integration of the Network Flow Query Language, Masters Thesis, August 2012 http://cnds.eecs.jacobs-university.de/archive/msc-2012-vbajpai.pdf
INVITED TALKS	Measuring TCP Connection Establishment Times of Dual-Stacked Web Services, *Internet Research Task Force (IRTF) Network Management Research Group (NMRG) Workshop on Large-Scale Network Measurements at CNSM 2013*, Zürich, October 2013. http://www.ietf.org/proceedings/interim/2013/10/14/nmrg/slides/slides-interim-2013-nmrg-1-10.pdf
	NFQL: A Tool for Querying Network Flow Records, *Internet Research Task Force (IRTF) Network Management Research Group (NMRG) Workshop on NetFlow/IPFIX at Internet Engineering Task Force (IETF) 87*, Berlin, July 2013. http://www.ietf.org/proceedings/87/slides/slides-87-nmrg-0.pdf
	Measuring the Effects of Happy Eyeballs, *v6ops Working Group Meeting at Internet Engineering Task Force (IETF) 87*, Berlin, July 2013. http://www.ietf.org/proceedings/87/slides/slides-87-v6ops-8.pdf
	Measuring the Effectiveness of Happy Eyeballs, *IPv6 Working Group Meeting at Réseaux IP Européens (RIPE) 66*, Dublin, May 2013. https://ripe66.ripe.net/archives/video/1208

PROJECT MEETINGS	Beyond Happy Eyeballs, *4th Leone Plenary, a Collaborative Research Project within the 7th Framework Programme of the European Commission*, Bremen, October 2013.
	Happy Eyeballs and Friends, *3rd Leone Plenary, a Collaborative Research Project within the 7th Framework Programme of the European Commission*, Helsinki, June 2013.
	Happy Eyeballs, *2nd Leone Plenary, a Collaborative Research Project within the 7th Framework Programme of the European Commission*, Rome, February 2013.
SEMINARS	Global Measurement Framework (13472), *A 3-day invitation-only Dagstuhl seminar on Initiating a Coherent Global Measurement Framework for the Internet*, LZI Schloss Dagstuhl, Wadern, November 2013. http://www.dagstuhl.de/13472
TUTORIALS	Large-Scale Measurement Platforms, 7*th IFIP International Autonomous Infrastructure, Management and Security Conference on Dependable Networks and Services (AIMS)*, Barcelona, June 2013. http://cnds.eecs.jacobs-university.de/tutorials
OPEN SOURCE	**Author**
	— NFQL, *An efficient C implementation of a stream-based flow query language*
	Contributor
	— ncclient, *A Python library for NETCONF clients.*
	— libnetconf, *A NETCONF library in C intended for building NETCONF clients and servers.*
	— mtr, *A network diagnostic tool.*
	— petascope, *A reference implementation of the OGC WCS standard suite.*
ACTIVITIES	**Course Lectures**
	— Network Address Translators (NAT), *Computer Networks, November, 2013*
	— Internet Protocol (IP), *Computer Networks, September, 2013*
	— Sockets API, *Computer Networks, September, 2013*
	— Semaphore Patterns & Memory Management, *Operating Systems, February, 2013*
	— NFQL & ncclient, *Advanced Networking, October, 2012*
	Reviewer
	— IEEE/IFIP Network Operations and Management Symposium (NOMS), 2014.
	— International Conference on Autonomous Infrastructure, Management and Security (AIMS), 2013.
	— IFIP/IEEE International Symposium on Integrated Network Management (IM), 2013.
	Project Supervision
	— Last-mile Latency Measurements using RIPE atlas, *Masters Project*
	— IPFIX support for NFQL, *Masters Project*
	— A Front-End Parser Implementation for NFQL, *Bachelors Thesis*
	— NETCONF over TLS implementation, *Bachelors Project*
	Memberships
	— IEEE Student Membership
	— IEEE Communications Society Membership
	— Internet Society Membership
	— SIGCOMM Membership
	— IFIP TC6 Working Group 6.6 Membership