

# Vaibhav Bajpai

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## CONTACT INFORMATION

Computer Networks and Distributed Systems  
School of Engineering & Sciences  
Jacobs University Bremen, Germany

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## EDUCATION

**Jacobs University Bremen**, Germany  
Doctor of Philosophy, Computer Science

Sep 2012—Present

- *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  
Master of Science, Computer Science

Sep 2010—Aug 2012

- *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  
Bachelor of Technology, Computer Science and Engineering

Aug 2005—Jun 2009

- *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 9<sup>th</sup> amongst all freshmen encompassing 600 affiliated colleges*

**Kendriya Vidyalaya Aliganj**, India  
Central Board of Secondary Education

Mar 2003—Mar 2005

- *Graduated as the top student of the class (3<sup>rd</sup> 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 35<sup>th</sup> in Junior Mathematics Olympiad, 2002.*

## PROFESSIONAL EXPERIENCE

**Jacobs University Bremen**, Germany  
Research Associate

Dec 2012—Present

- *Leone FP7 EU Project: From Global Measurements to Local Management*

**Jacobs University Bremen**, Germany  
Student & Teaching Assistant

Feb 2011—Aug 2012

- *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  
Systems Engineer

Jul 2009—Jun 2010

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

OPEN SOURCE	Author <ul style="list-style-type: none"> <li>– <b>NFQL</b>, <i>An efficient C implementation of a stream-based flow query language</i></li> </ul>
	Maintainer <ul style="list-style-type: none"> <li>– <b>ncclient</b>, <i>A Python library for NETCONF clients</i></li> </ul>
	Contributor <ul style="list-style-type: none"> <li>– <b>libnetconf</b>, <i>A NETCONF library in C intended for building NETCONF clients and servers</i></li> </ul>
INVITED TALKS	Evaluating the Effectiveness of Happy Eyeballs, <i>RIPE 66 Meeting, an official gathering of Internet Service Providers, Network Operators, Regulators and Government Representatives</i> , Dublin, May 2013.  Happy Eyeballs, <i>2nd Leone Plenary, a Collaborative Research Project within the 7th Framework Programme of the European Commission</i> , Rome, February 2013.
SEMINARS	Global Measurement Framework (13472), <i>A 3-day invitation-only Dagstuhl seminar on Initiating a Coherent Global Measurement Framework for the Internet</i> , LZI Schloss Dagstuhl, Wadern, November 2013.
TUTORIALS	Large-Scale Measurement Platforms, <i>7th International Conference on Autonomous Infrastructure, Management and Security (AIMS)</i> , Barcelona, June 2013.
ACTIVITIES	Course Lectures <ul style="list-style-type: none"> <li>– <b>Semaphore Patterns &amp; Memory Management</b>, <i>Operating Systems</i>, February, 2013</li> <li>– <b>NFQL &amp; ncclient</b>, <i>Advanced Networking</i>, October, 2012</li> </ul>
	Reviewer <ul style="list-style-type: none"> <li>– International Conference on Autonomous Infrastructure, Management and Security (AIMS), 2013</li> <li>– IFIP/IEEE International Symposium on Integrated Network Management (IM), 2013</li> </ul>
	Project Supervision <ul style="list-style-type: none"> <li>– IPFIX support for NFQL, <i>Masters Project</i></li> <li>– A Front-End Parser Implementation for NFQL, <i>Bachelors Thesis</i></li> <li>– NETCONF over TLS implementation, <i>Bachelors Project</i></li> </ul>
PUBLICATIONS	Memberships <ul style="list-style-type: none"> <li>– IEEE Student Membership</li> <li>– IEEE Communications Society Membership</li> <li>– Internet Society Membership</li> </ul>
	Vaibhav Bajpai, Jürgen Schönwälder: Understanding the Impact of Network Infrastructure Changes using Large-Scale Measurement Platforms, <i>7th International Conference on Autonomous Infrastructure, Management and Security (AIMS)</i> , Barcelona, June 2013.
	Vaibhav Bajpai, Johannes Schauer, Jürgen Schönwälder: NFQL: A Tool for Querying Network Flow Records, <i>13th IEEE International Symposium on Integrated Network Management (IM)</i> , Ghent, May 2013.
	Vaibhav Bajpai, Vitali Bashko, Catalin David, Siarhei Kuryla, Vladislav Perelman, Johannes Schauer, Nikolay Melnikov, Anuj Sehgal, Jürgen Schönwälder: <b>Design and Prototype Implementation of the WattsApp Telemetry Platform</b> , <i>IEEE International Conference on Internet of Things (iThings)</i> , Besançon, November 2012.
	Vaibhav Bajpai and Vladislav Perelman: <b>A Cross-Platform Open Source 3D Object Reconstruction System using a Laser Line Projector</b> , <i>3rd IEEE Germany Student Conference (GSC)</i> , Passau, November 2012.
	Vaibhav Bajpai, Nikolay Melnikov, Anuj Sehgal, Jürgen Schönwälder: <b>Flow-based Identification of Failures Caused by IPv6 Transition Mechanisms</b> , <i>6th Conference on Autonomous Infrastructure, Management and Security (AIMS)</i> Luxembourg, June 2012.