# Vaibhav Bajpai

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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 9<sup>th</sup> 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 (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

Dec 2012—Present

Research Associate

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

#### Jacobs University Bremen, Germany

Jun 2012—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)

**OPEN SOURCE** 

Author

NFQL, An efficient C implementation of a stream-based flow query language

#### Maintainer

- ncclient, A Python library for NETCONF clients

#### Contributor

libnetconf, A NETCONF library in C intended for building NETCONF clients and servers

#### INVITED TALKS

Evaluating the Effectiveness of Happy Eyeballs, *RIPE 66 Meeting, an official gathering of Internet Service Providers, Network Operators, Regulators and Government Representatives*, Dublin, May 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.

**TUTORIALS** 

Large-Scale Measurement Platforms, 7th International Conference on Autonomous Infrastructure, Management and Security (AIMS), Barcelona, June 2013.

#### ACTIVITIES

#### Course Lectures

- Semaphore Patterns & Memory Management, Operating Systems, February, 2013
- NFQL & ncclient, Advanced Networking, October, 2012

#### Reviewer

- International Conference on Autonomous Infrastructure, Management and Security (AIMS), 2013
- IFIP/IEEE Interational Symposium on Integrated Network Management (IM), 2013

## **Project Supervision**

- 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

#### **PUBLICATIONS**

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.

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.

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.

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.