Vaibhav Bajpai

Contact Information Computer Networks and Distributed Systems School of Engineering & Sciences Jacobs University Bremen, Germany v.bajpai@jacobs-university.de http://www.vaibhavbajpai.com

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 9th 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 (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 $35^{
 m th}$ 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

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)

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 implmenetation of the OGC WCS standard suite.

INVITED TALKS

Happy Eyeballs and Friends, 3rd Leone Plenary, a Collaborative Research Project within the 7th Framework Programme of the European Commission, Helsinki, June 2013.

Evaluating the Effectiveness of Happy Eyeballs, RIPE 66 Meeting, 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

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.

TECHNICAL ARTICLES Evaluating the Effectiveness of Happy Eyeballs, *RIPE Labs Article*, June 2013.