Vaibhav Bajpai

CONTACT
INFORMATION

Computer Networks and Distributed Systems
School of Engineering & Sciences
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EDUCATION

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

— *Dissertation work under the guidance of Prof. Dr. Jürgen Schönwälder*
— *Merit-based tuition scholarship and stipend for the entire duration*

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

— *Masters Thesis: F (v2), 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.*

PROFESSIONAL
EXPERIENCE

Jacobs University Bremen, Germany   **Jun 2012—Aug 2012**
Student Assistant

— *Implementation of the Network Flow Query Language (NFQL)*

Jacobs University Bremen, Germany   **Feb 2011—May 2012**
Teaching Assistant

— *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)*

PROFESSIONAL
ACTIVITY

Reviewer

— *IFIP/IEEE Interational Symposium on Integrated Network Management*
  Ghent, Belgium. May 27-31, 2013.

PUBLICATIONS

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.

ACADEMIC PROJECTS

Masters Thesis: F (ν2)   **Jan 2012—Aug 2012**
A complete system integration of the network flow query language
under the guidance of Prof. Dr. Jürgen Schönwälder

F (ν2) is a fast execution engine of the network flow query language (NFQL). It can process flow traces with millions of records in matter of minutes, which used to take days in the F(ν1).

WattsApp Telemetry Platform   **Sep 2011—Dec 2011**
under the guidance of Prof. Dr. Jürgen Schönwälder

A telemetry platform that demonstrates remote monitoring of sensor readings. The complete communication stack from the embedded device to the cloud is over IPv6. The cloud interfaces with the web and a mobile app.

IPv6 Transition Evaluations   **Feb 2011—Aug 2011**
under the guidance of Prof. Dr. Jürgen Schönwälder

A study of the deployment of NAT64 and DS−Lite. Failure signatures were defined using NFQL to automatically identify problems in application running over these IPv6 transition schemes

Mobile Mapping   **Feb 2011—Aug 2011**
under the guidance of Prof. Dr. Andreas Nüchter

Mobile 3D reconstruction using laser scanners to capture point cloud data in a non stop and go fashion. The interaction with the hardware was performed using ROS and point clouds were processed using SLAM6D.

Reference Implementation of WCS 2.0 Standard   **Sep 2010—Jan 2011**
under the guidance of Prof. Dr. Peter Baumann

Extended PetaScope, a reference implementation of OGC Web Coverage Service standard to WCS 2.0 to make coverages interchangeable across all OGC−based services using GML 3.2.1

Projection based 3D Laser Scanner   **Sep 2010—Jan 2011**
under the guidance of Prof. Dr. Andreas Nüchter

A low cost 3D object reconstruction system using a laser line projector. The only hardware requirements were a simple hand-held laser and a standard camera. The point clouds were processed using SLAM6D.

Bachelors Project: Dexter   **Aug 2008—Jun 2009**
A social experience on top of google search results
under the guidance of Prof. Sanjeev Pippal

A Java EE MVC web application that allows ability to vote, comment, and reorder google search results, browse popular voted content and filter them, bookmark and tag search results and follow friend's search activities.