

Anjo Vahldiek

vahldiek@mpi-sws.org

Current Address: Cecilienstr. 14, 66111 Saarbrücken, Germany, Tel: +49 – 173 – 154 88 46

Education

Since 2010 **Max-Planck-Institute for Software Systems**

Doctoral Student advised by Peter Druschel

2009 - 2010 Saarland University – Graduate School Saarbrücken

PhD-Candidate at Computer Science Department with **University Scholarship**

Mentor: Prof. Dr. Hermanns

Main Lectures: Multicore System Architectures, Distributed Systems, Problem Solving in Computer Science

2006-2009 Baden-Württemberg Cooperative State University Stuttgart (DHBW Stuttgart)

Bachelor of Science in Applied Computer Science (210 ECTS) in Cooperation with IBM Germany

GPA: 1.5, First Class, Top 10%

2004 Freie University of Berlin

“Mathematic for Computer Scientist I” during High School by PD. Dr. Klaus Kriegel (8 ECTS)

Skills

C (++), Java SE + EE, Parallel Programming (Models & Patterns) and Algorithms, Processor Architectures, Distributed Systems, Linux, Database Systems (e.g. Informix), English

Experiences

2011 **Research Project “Trusted Storage”**

Design, Implementation and Analysis of a Novel Storage Abstraction ensuring data integrity & confidentiality only dependent on the device hardware & firmware.

2010 **Research Project “Wireless Bike” advised by Prof. Dr. Hermanns**

Design, Implementation and Verification of a wireless electric bicycle brake using MyriaNed nodes and Modest.

2009 **IBM International Bachelor Thesis: Distributed Complex Query Processing for ID**

Investigate the Possibilities to Distribute a Complex Query to Nodes of the Informix Dynamic Server (IDS). Introduced new Query Analyzation for Intelligent Workload Distribution. Working **remotely** with the Team at **San Jose**. Mentor: Keshava Murthy (IDS Optimizer Architect)

2009 **Research Project “Head-Tracking” Advised by Prof. Dr. Reichardt**

Analyzed, Discussed and Improved current Head Tracking Algorithm of the OpenCV Framework. Results will be published in Proceedings of the Fifth Annual Meeting on Information Technology and Computer Science of the Baden-Wuerttemberg Cooperative State University.

2008 **Student Research Project at the German Aerospace Center**

Automated Analysis of Images to Calculate Properties of the Image. The Calculation Includes Regression and Integration. The Aim is to Deliver a Software which is Robust during the Analyzing Process and Performs the Calculation in a Reasonable Amount of Time.

2008 **IBM International Internship: Dynamic Kernel Fusion for Cell Broadband Engine**

Planning, Designing, Implementing and Optimizing a Prototype Library & Framework of Dynamic Kernel Fusion for the HPC Cell Broadband Engine at the Multicore Software Development Team at **Austin, Tx**. The goal is to Reduce the Data Movement between Cores of a Multi-Core Processor and the Main Memory to Enhance the Usage of Multi-Core Processors Particularly on Chained Matrix Operations (e.g. Add, Multiply, Transpose).

Mentor: Dean J. Burdick (Multicore Software Architect)

2008 **IBM Internship: Client Value Initiative at IBM System Z Sales**

Analyzed the Client Value Initiative of IBM System Z Software Sales and Submitted Proposals to Enhance Communication in a new Team Structure. Developed Proposals to Encourage Sales Representatives of Manager’s new Indirect Report.

2007 **IBM Internship: Linux on Cell**

Analyzed Cell Broadband Engine and Binary Search Tree – Using Parallel Programming – Increased Performance of a special Tree Operation by 35%

Awards & Scholarships

2010 Max-Planck-Institute for Software Systems (monthly stipend)

2009 Graduate School of the Saarland University (monthly stipend)

2009 E-Fellows Scholarship

2007 IBM International Internship (Austin, Tx)

Anjo Vahldiek

vahldiek@mpi-sws.org

Current Address: Cecilienstr. 14, 66111 Saarbrücken, Germany, Tel: +49 – 173 – 154 88 46

Publications

1. Hernan Baro Graf, Holger Hermanns, Juhi Kulshrestha, Jens Peter, Anjo Vahldiek, Aravind Vasudevan: "*A Verified Dependable Wireless Safety Critical Hard Real-Time Design*", IEEE WoWMoM 2011
2. Benedict Rafanallo, Stan Gowen, Dean Burdick, Anjo Vahldiek: "*Dynamic Kernel Fusion and the Block Movement Library*", ip.com, Sep. 2009
3. Anjo Vahldiek, Ansgar Schneider, Stefan Schubert, Dirk Reichardt: "*Evaluation of an Optimization for Object Tracking – Feedback-Based Head-Tracking*", Fifth Annual Meeting on Information Technology and Computer Science of the Baden-Wuerttemberg Cooperative State University, 2009

Talks

1. "Trusted Storage" at FAST'12 Work in Progress, February 2012
2. Day4IT – DHBW Karlsruhe: "Feedback-Based Headtracking – A novel Approach for Headtracking", July 2009

Posters

1. "Trusted Storage" at FAST'12, February 2012

Teaching

1. Teaching Assistant of Operating Systems summer term 2011
2. Multiple Java classes within IBM University Education for freshmen (Java SE & EE)