

Dr. Holger Ziekow

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EDUCATION

- 2009 – Current **PostDoc Studies** **International Computer Science Institute, Berkeley, USA**
2005 – 2008 **Doctoral Thesis** **Humboldt-University of Berlin, Berlin, Germany**
Doctors Degree: *with highest distinction (summa cum laude)*
- 2003 – 2005 **Studies of Computer Science** **Technical University of Berlin, Berlin, Germany**
German Diplom (masters equivalent): *with highest distinction (awarded)*

PROFESSIONAL EXPERIENCE

- February 2010 – now **Project Manager / Senior Researcher** **Humboldt-University of Berlin, Berlin, Germany**
- Research and project management for the FRE project Wireless City Berlin
 - Management of a research team with three Ph.D. candidates
 - Development and analysis of architectures for cloud based services and mobile applications
 - Research on event based systems and business applications
 - Teaching and supervision of student work
- January 2009 – February 2010 **Postdoctoral Researcher** **International Computer Science Institute, Berkeley, USA**
- Designed and tested a novel concepts for fast access to RFID events in the Internet of Things
 - Developed design guidelines for cost optimal event-based systems
 - Developed new concepts for optimizing distributed complex event processing
 - Served as reviewer and in the program committee for several international conferences and journals
 - Published research results in seven reviewed international scientific conferences and journals
- November 2005 – January 2009 **Research Associate** **Humboldt-University of Berlin, Berlin, Germany**
- Successfully conducted two manufacturing related research projects with SAP research
 - Developed technologies for B2B integration of RFID in inter-organizational supply chains as part of a German government project
 - Wrote several chapters in the first book on RFID in manufacturing
 - Supervised several bachelor and master theses
 - Served as reviewer and in the program committee for several international conferences and journals
 - Published research results in several international scientific conferences, books and journals
- March 2005 – November 2005 **Intern (Software Engineer)** **SAP Labs, LLC, Palo Alto, USA**
- Developed technologies for various modules for the SAP Smart Items Infrastructure (SII)
 - Implemented prototypes
- July 2003 – Mai 2005 **Student Assistant** **Humboldt-University of Berlin, Berlin, Germany**
- Conducted and published a security analysis of the RFID technology for the research project InterVal of the BMBF (German Federal Ministry of Education and Research)
 - Implemented modules for the online marketplace Asperado
- December 2002 – Mai 2003 **Intern (Software Engineer)** **ACNielsen, Auckland, New Zealand**
- Developed a secure concept for remote access to the companies databases
- April 2002 – December 2002 **Software Engineer** **Asis-Soft- and Hardware GmbH, Berlin, Germany**
- Application development for embedded systems using C, C++ and Java
- August 2000 – October 2000 **Software Engineer** **Plenum-new-media, Berlin, Germany**
- Development of websites using HTML and JavaScript

Teaching

2010 – now	<i>Advanced Information Systems 2</i>	Humboldt-University of Berlin, Berlin, Germany
2008 – 2009	<i>Current Issues in IT Management</i>	Humboldt-University of Berlin, Berlin, Germany
2008 – 2009	<i>Electronic Business Case Studies</i>	Humboldt-University of Berlin, Berlin, Germany

MISCELANIOUS

- Filed five patent applications for SAP about smart items integration
 - Served as scientific consultant in the development of the European RFID policy
 - Consulted a major company in the textile industry about RFID integration
 - Supervised several bachelor/master theses and thought several classes in IT and business administration
 - Wrote significant proportions of the first book on RFID in manufacturing (ISBN 9783642095313)
 - International work experience in three different countries (New Zealand, USA, Germany)
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AWARDS AND SCHOLARSHIPS

- DAAD-Postdoc-Scholarship, granted by the German Academic Exchange Service, 2009
 - Book-Award, granted by the German Physical Society for distinguished performance in physics, 2000
 - Student Physics Award, granted by the Physical Society Berlin for distinguished performance in physics, 1999
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PUBLICATIONS

- Voisard A., Ziekow H., "Modeling trade-offs in the design of sensor-based event processing infrastructures", (to be published 2010) Information Systems Frontiers, 2010.
- Ziekow H., Fabian B., Müller C., Günther O., "RFID in the Cloud: A Service for High-Speed Data Access in Distributed Value Chains", (to be published 2010) In proceedings of the Americas Conference on Information Systems (AMCIS), 2010.
- Ziekow H., Ivantysynova L., Günther O. "RFID-Data Cleaning for Shop-Floor Applications", (to be published 2010) In Damith Ranasinghe, Michael Sheng and Sherali Zeadally (Eds.), Unique Radio Innovation for the 21st Century: Building Scalable and Global RFID Networks, (1st ed.).
- Ziekow H., Ivantysynova L., Günther O., "Architectural Patterns for RFID Applications in Manufacturing", In proceedings of the European Conference on Information Systems (ECIS), 2010.
- Voisard A., Ziekow H., "Designing Sensor-based Event Processing Infrastructures", In proceedings of the 43rd Hawaii International Conference on System Sciences, (HICSS), 2010.
- Ziekow H., Fabian B., Müller C., "High-Speed Access to RFID Data: Meeting Real-Time Requirements in Distributed Value Chains", In proceedings of OTM Federated Workshops and Conferences 2009 International Workshop on Enterprise Integration, Interoperability and Networking, 2009.
- Ziekow H., "Exploiting Process Knowledge for Event Processing in Distributed Business Applications", In proceedings of OTM Federated Workshops and Conferences 2009 International Workshop on Information System in Distributed Environments, 2009.
- Günther O., Ivantysynova L., Rode J., Ziekow H., "IT Infrastructures in Manufacturing: Insights from Seven Case Studies", In proceedings of the Americas Conference on Information Systems (AMCIS), 2009.
- Ziekow H., Günther O., "Sharing RFID and Complex Event Data Among Organizations", Special Issue on Advances in RFID Technology in Information Systems Frontiers, 2009.
- Ivantysynova L., Klafft M., Ziekow H., Günther O., Kara S., "RFID in Manufacturing: The Investment Decision", In proceedings of the Pacific Asia Conference on Information Systems (PACIS), 2009.

- Ziekow H., "RFID Integration into Enterprise Software Environments - A Technical and Economical Analysis with Use Cases from Manufacturing", Dissertation, Humboldt-Universität zu Berlin, November 2008
- Ivantysynova L., Ziekow H., "Design Guidelines for RFID-Based Applications in Manufacturing", In proceedings of the European conference on information systems (ECIS), 2008.
- Ziekow H., Ivantysynova L., "A Probabilistic Approach for Cleaning RFID Data", In proceedings of the RFDM'08 Workshop in conjunction with ICDE 2008, April 2008
- Günther O., Kletti W., Kubach U., Ivantysynova L., Ziekow H., "RFID in Manufacturing: From Shop Floor to Top Floor", book chapter in RFID in Manufacturing, published by Springer, April 2008.
- Ivantysynova L., Ziekow H., Günther O., Kletti W., Kubach U., "Six Case Studies", book chapter in RFID in Manufacturing, published by Springer, April 2008.
- Ivantysynova L., Ziekow H., Günther O., Kletti W., Kubach U., "Lessons Learned", book chapter in RFID in Manufacturing, published by Springer, April 2008.
- Ivantysynova L., Ziekow H., Günther O., "A Guide to Assess Costs and Benefits for RFID Investments in Manufacturing", In proceedings of ICIS 2007 Workshop on E-Business, December 2007.
- Ziekow H., "In-Network Event Processing in a Peer to Peer Broker Network for the Internet of Things", Proceedings of OTM Federated Workshops and Conferences 2007 International Workshop on Peer to Peer Networks, 2007.
- Ivantysynova L., Ziekow H., "RFID in der Produktion: Eine Fallstudie aus der Airbagindustrie", 37. Jahrestagung der Gesellschaft für Informatik e.V. (GI), 2007
- Hartmann M., Ziekow H., Mühlhäuser M., "Context Aware Routing in Sensor Networks", In: KiVS 2007. T. Braun and G. Carle and B. Stiller (Ed.). pp. 175-80, VDE Verlag, 2007. ISBN 978-3-8007-2980-7., 2007,
- Fabian B., Günther O., Ivantysynova L., Spiekermann S., Ziekow H., "Sicherer Informationsaustausch im Internet der Dinge", book chapter in: Bullinger, H.-J. and ten Hompel, M.(Hrsg.): Internet der Dinge, Springer, 2007.
- Ziekow H., Avanes A., Bornhövd C."Service Composition and Deployment for a Smart Items Infrastructure", In proceedings of the 14th International Conference on Cooperative Information Systems (CooPIS), 2006.
- Günther, O., Ivantysynova, L., Teltzrow, M., Ziekow, H., "Kooperation in RFID-gestützten Wertschöpfungsnetzen", Industrie Management, 3/2006.
- Ziekow, H., Ivantysynova, L., "Stream Processing in Networks of Smart Devices", In proceedings of the ICPS'06 : IEEE International Conference on Pervasive Services (ICPS), 2006.
- Spiekermann, S., Ziekow, H., "RFID: A Systematic Analysis of Privacy Threats and a 7-Point Plan to Address Them", Journal of Information System Security, Vol. 1, No. 3, 2006.
- Spiekermann, S., Ziekow, H., "RFID: a 7-point plan to ensure privacy", In proceedings of the 13th European Conference on Information Systems (ECIS), 2005.
- Spiekermann, S., Ziekow, H., "Technische Analyse RFID-bezogener Angstszszenarien", Institut für Wirtschaftsinformatik, Humboldt-Universität zu Berlin, November 2004.
- Tamm, G., Ziekow, H.: The utility of learning management systems for institutes of higher education, In proceedings of the 15th Biennial Conference of the International Telecommunications Society (ITS), 2004.

PATENT APPLICATIONS

- HIERARCHICAL, MULTI-TIERED MAPPING AND MONITORING ARCHITECTURE FOR SERVICE-TO-DEVICE MAPPING FOR SMART ITEMS (submitted with Christof Bornhoevd, Artin Avanes, Brian S. Mo and Matthias M. Wiemann)
- HIERARCHICAL, MULTI-TIERED MAPPING AND MONITORING ARCHITECTURE FOR SERVICE-TO-DEVICE RE-MAPPING FOR SMART ITEMS (submitted with Christof Bornhoevd, Artin Avanes, Brian S. Mo and Matthias M. Wiemann)
- COMPOSITION MODEL AND COMPOSITION VALIDATION ALGORITHM FOR UBIQUITOUS COMPUTING (submitted with Artin Avanes and Christof Bornhövd)
- SERVICE-TO-DEVICE MAPPING FOR SMART ITEMS (submitted with Artin Avanes and Christof Bornhövd)
- SERVICE-TO-DEVICE RE-MAPPING FOR SMART ITEMS (submitted with Artin Avanes and Christof Bornhövd)