

Curriculum Vitae Ulrich Norbistrath Web Version

Contact Information

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| Name | Ulrich Norbistrath |
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Research Interests (<http://research.ulno.net>)

- Internet of Things (Home Automation, Ubiquitous Systems, Mobile Computing, Mobile Authentication)
- Software Engineering (Model Driven Engineering, Service Oriented Computing)
- Information Systems (Knowledge Management)
- Distributed systems (Cloud Computing, P2P Systems, High Performance Computing)
- Security and privacy (in IoT and Home Automation)
- Active learning (and using this in my teaching)

Education

| | |
|---------|---|
| 2007/06 | PhD Computer Science, RWTH Aachen University (Aachen, Germany) Research areas: component based programming, model driven engineering, software architectures, smart home systems Dissertation title: <i>Configuring eHome Systems</i> Grade: magna cum laude (1.0) Advisors: Professor Dr.-Ing. M. Nagl, RWTH Aachen University (Aachen, Germany), Professor Dr. rer.-nat. Albert Zündorf, University of Kassel (Kassel, Germany) |
| 2000/07 | Diploma Computer Science, RWTH Aachen University (Aachen, Germany) Research areas: functional programming languages, networks Thesis title: <i>Port Based Distributed Haskell</i> |
| 1995/08 | Intermediate diploma (Vordiplom) Mathematics, RWTH Aachen University (Aachen, Germany) |

Academic Experience

| | |
|-------------------|--|
| 2017/01 – present | Adjunct Professor at Department of Computer Science at George Mason University (VA, USA) |
| 2014/09 – | FH Professor in Mobile Computing, FH Upper Austria (first year full |

present professor, then since 2015/09 as adjunct)

2012/09 – Assistant professor Computer Science in School of Science and Technology
 2014/05 (SST) at Nazarbayev University (Astana Kazakhstan)

2009/08 – *Senior research fellow* in Distributed Systems group at University of Tartu
 2012/09 (Tartu, Estonia)

2009/10 *Visiting researcher* at Prof. Lisa Singh's group at Georgetown University,
 Washington, DC, USA

2006/10 – *Lecturer and researcher* in Computer Science at University of Tartu (Tartu,
 2012/09 Estonia)

2007/07 – *Postdoc* in Distributed Systems group at University of Tartu (Tartu, Estonia)
 2009/08

2008/09 – *Visiting researcher* at Prof. M. Brian Blake's group at Georgetown
 2008/10 University, Washington, DC, USA

2004/04 – *Consultant* of the Department of Computer Science (Fachgruppenreferent)
 2006/10

2002/03 – PhD student *lecturer and system administrator* at RWTH Aachen University
 2007/06 (Aachen, Germany), Department of Computer Science 3,
Teaching: Supervision, lectures, seminars and lab courses
Additional: Linux administration, web-server administration

1994/07 – *Studentische Hilfskraft* (similar to *research assistant*), aps GmbH, European
 1999/03 Center of Mechatronics (Aachen, Germany)

Projects:

- 3D robotic and milling simulation
- Application design of Lotus Notes applications
- Administration of heterogeneous development environments (SGI IRIX, PC Linux, PC WIN NT, SUN SUN-OS, SUN Linux, PPC Parallel Computer VXWorks, Lotus Domino-Server)
- Preparation of and participation in international meetings (IECON '98)

Additional Experience

2005/01 – current *Independent Technical Consultant* at <http://ulno.net>

2015/09 – 2015/01 *Game Developer*, ulno.net
Project: Development of the game McMinos (<http://mcminos.com>) for iOS and Android

2015/04 *Didaktische Methoden und Lehrplanung* (eng.: Didactical Methods and Planning), Linz, Austria

2010/12 – 2014/09 *CTO* Biometry Inc. (former BIOMETRY.com)

2008/03 – 2009/08 *Representative of University of Tartu*, Dept. of Computer Science (Tartu, Estonia) for Mobile Computing (i.e. on [Mobile Monday Estonia](#) events)

- 2009/03 – 2009/09 *Mentor* in the Google Summer of Code 2009 (project: sip-communicator, now jitsi)
- 2008/09 Course on Supervision, Sagadi, Estonia
- 2008/03 – 2008/09 *Mentor* in the Google Summer of Code 2008 (project: sip-communicator, now jitsi)
- 2007/11 – 2008/04 *Gaming: Situated and Action Learning* (<http://algs.ulno.net>), Cultural Institute, Viljandi, Estonia
- 1999/05 – 2004/10 *Management director* of the company WeSolv'IT (specialization in networks, datawarehousing, and integrating Linux solutions)

Projects:

- Linux gateways (in beginning of 2001 in 30 Schools and 5 offices -> ~1000 Computers connected to the Internet)
- Linux desktop solutions (application in three offices and one school),
- Linux surf terminal (bookstores Mayersche Deutschland, Förderverein Kunst und Internet more than 50 terminals),
- data warehouse Solution for Düker Sanitär
- re-engineering and extension of the Linux solution for the bookstores Mayersche Deutschland (this software controls more than 100 computers all over Germany up to today)
- accelerated email accounting at schools for ePost (15000 mail-accounts created from 2001/07 to 2002/01)

Experience: network administration (pharmacies, churches, architects, insurance offices, movie production office, travel agencies, schools), web design, experience in teaching and customer care

Research: virtualization, system security, network deployment strategies, requirements analysis, functional filters for databases

- 1999/05 – 2000/02 *Developer*, Multidata GmbH, Prüm

Projects:

- Application development for the health area
- Consulting and support migrating SCO servers to Linux

Experience: Migration of Windows 9x applications to Linux, Network administration

- 1992/01 – 1993/08 *Game Developer*, Trifle Softworx

Project: Development of the game McMinos for Atari ST/TT/Falcon

Skills

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|-----------------------|---|--------------|
| Languages | German | native |
| | English | fluent |
| | French | intermediate |
| | Estonian | basic |
| | Indonesian | basic |
| | Russian | basic |
| Operating Systems | Windows, Linux, Android, Mac OSX, iOS, Minix | |
| Applications | MS/Open/Libre Office, IntelliJ, Eclipse, VMware, VirtualBox, QEMU/KVM | |
| Programming languages | C/C++, Java, C#, Python, Unix Shell Scripts, HTML, JavaScript, Assembler MIPS/68k, Haskell, Perl, Tcl/Tk, Basic, SQL, Fortran, Lua, ADA, Ruby | |

Publications (<http://publications.ulno.net>)

- 1 Franken, S., Norbistrath, U., Prinz, W.: *The Impact of SearchTrails on the Quality of Collaborative Search. A Novel Trail-based Visualization Facilitating the Search Process*. i-Com 2017, Journal of Interactive Media. Volume 16, Issue 1, Pages 3-14. De Gruyter, Oldenburg.
- 2 Bennett, C.; Norbistrath, U.: *Disrupted Communities: a unique view of how people, organizations, making things, and the Internet of Things (IoT) can change the world for the better*. <https://www.linkedin.com/pulse/disrupted-communities-unique-view-how-people-making-things-bennett>
- 3 Franken, S.; Norbistrath, U.; Prinz, W. (2016) *The Impact of SearchTrails on the Quality of Collaborative Search*. In Proceedings of Mensch und Computer 2016.
- 4 Franken, S.; Norbistrath, U.; Prinz, W. (2015) *Search Trails as Collaboration Artifacts—Evaluating the UX*. In Proceedings of Mensch und Computer 2015.
- 5 Franken, S.; Norbistrath, U. (2014) *Trail Building During Complex Search Tasks*. In: M. Koch, A. Butz & J. Schlichter (Hrsg.): Mensch und Computer 2014, München: Oldenburg, pp. 135-144.
- 6 Franken, S.; Norbistrath, U. (2014) *Supporting the Evaluation of Complex Search Tasks with the SearchTrails Tool*. In: CASCON 2014, Toronto. IBM Corp. Riverton, NJ, USA, pp. 262-274.
- 7 Javed, S.; Norbistrath, U. (2014) *Service integration for biometric authentication*. In Emerging Technologies (ICET), 2014 International Conference on (pp. 30-35). IEEE.
- 8 Norbistrath, U.; Blessing, W. (2014) *Method for sequential biometric authentication and mobile station*. US Patent App. 13/769,571
- 9 Zündorf, A.; George, T.; Lindel, S.; Norbistrath, U. (2013). *Story Driven Modeling Library (SDMLib): an Inline DSL for modeling and model transformations, the Petrinet-Statechart case.*, in Sixth Transformation Tool Contest (TTC 2013), ser. EPTCS, 2013
- 10 Norbistrath, U.; Zündorf, A.; Jubeh, R. (2013) *Story Driven Modeling*. CreateSpace Independent Publishing Platform, 2013, S. 1-333, ISBN 978-1483949253
- 11 Singer, G.; Norbistrath, U.; Lewandowski, D. (2012) *An experiment with ordinary Web search engine users carrying out complex search tasks*. arXiv preprint arXiv:1206.1492.

- 12 Singer, G.; Norbistrath, U.; Lewandowski, D. (2012) *Impact of gender and age on performing complex search tasks online*. Mensch & Computer. arXiv preprint arXiv:1206.1494.
- 13 Singer, K.; Singer, G.; Lepik, K., Norbistrath, U.; Pruulmann-Vengerfeldt, P. (2012) *Search Strategies of Library Search Experts*. arXiv preprint arXiv:1206.2465.
- 14 Singer, G.; Pruulmann-Vengerfeldt, P.; Norbistrath, U.; Lewandowski, D. (2012) *The relationship between internet user type and user performance when carrying out simple vs. complex search tasks*. First Monday 17.
- 15 Singer, G.; Norbistrath, U.; Lewandowski, D. (2012) *Ordinary search engine users carrying out complex search tasks*. Journal of Information Science.
- 16 Singer, G.; Norbistrath, U.; Lewandowski, D. (2012) *Ordinary search engine users assessing difficulty, effort, and outcome for simple and complex search tasks*. Proceedings of the 4th Information Interaction in Context Symposium. pp. 110–119.
- 17 Singer, G.; Norbistrath, U.; Lewandowski, D. (2012) *An experiment with ordinary Web search engine users carrying out complex search tasks*. arXiv preprint arXiv:1206.1492,.
- 18 Singer, G.; Danilov, D.; Norbistrath, U. (2012) *Complex Search: Aggregation, Discovery, and Synthesis*. Proceedings of the Estonian Academy of Sciences, vol. 61, no. 2, pp. 89–106, 2012.
- 19 Tamme, Tõnu; Norbistrath, Ulrich; Singer, Georg; Vainikko, Eero (2011) *Improving Email Management*. IMMM 2011 : The First International Conference on Advances in Information Mining and Management; Barcelona, Spain, October 23-29, 2011. XPS (Xpert Publishing Services), 2011, 67 – 72.
- 20 Kirsimäe, S., Norbistrath, U. Singer, Georg; Srirama, Satish Narayana; Lind, Artjom (2011) *Extending Friend-to-Friend Computing to Mobile Environments*. MOBILITY, The First International Conference on Mobile Services, Resources, and Users; Barcelona, Spain; October 23-29, 2011, 75 – 80.
- 21 Singer, G.; Norbistrath, U.; Vainikko, E.; Kikkas, H.; Lewandowski, D. F. (2011) *Search-Logger – Analyzing Exploratory Search Tasks*. ACM Symposium On Applied Computing. Taiwan: ACM, 2011, (SAC '11 Proceedings of the 2011 ACM Symposium on Applied Computing ACM New York), 751 – 756.
- 22 Singer, K.; Singer, G.; Lepik, K.; Norbistrath, U.; Pruulmann-Vengerfeldt, P. (2011) *Search Strategies of Library Search Experts*. In: Proceedings of the International Conference on QQML 2011: 3rd International Conference on Qualitative and Quantitative Methods in Libraries. World Scientific, 2011.
- 23 Lind, A.; Norbistrath, U.; Jubeh, R. (2011) *Using Fujaba in Systems Modeling A Teaching Experience Report*. Fujaba Days 2011 28.
- 24 Singer, G.; Livenson, I.; Dumas, M.; Srirama, S. N.; Norbistrath, U. (2010) *Towards a model for cloud computing cost estimation with reserved resources*. Proceedings of 2nd International ICST Conference on Cloud Computing (CloudComp 2010), Barcelona, Spain.
- 25 Pöcher, C.; Batrašev, O; Norbistrath, U.; Vainikko, E. (2009) *DougFlow – Offering Scientific Applications via Web Services*, International Conference on Internet and Web

- Applications and Services (ICIW 2009), May 2009, Venice, Italy, pp. 487-492, ISBN 978-0-7695-3613-2 (best paper award)
- 26 Neljandik, J.; Norbistrath, U.; Vainikko, E.; VILLEMS, A.; Männamaa, I. (2009) *Mullivelled 2.0 - Wrapping a Real-Time Strategy Computer Game into an Educational Gaming Environment*, Proceedings of the International Conference on Internet and Web Applications and Services (ICIW 2009), May 2009, Venice, Italy, pp. 487-492, ISBN 978-0-7695-3613-2
 - 27 Norbistrath, U.; Männamaa, I.; VILLEMS, A.; Kalamees-Pani, K. (2009) *Mullivelled - Wrapping Computer Games into Educational Gaming Environments*. Games: virtual world and reality, selected papers of International Gaming and Simulation Association Conference (ISAGA 2008, July 2008), Editors: E.Bagdonas & I.Patasiene. Technologija, Kaunas/Lithuania 2009, pp.219-225
 - 28 Norbistrath, U.; Kraaner, K.; Vainikko, E.; Batrašev, O. (2008) *Friend-to-Friend Computing - Instant Messaging Based Spontaneous Desktop Grid*. The Third International Conference on Internet and Web Applications and Services (ICIW 2008), June 2008, Athens/Greece, IEEE Computer Society Press.
 - 29 Norbistrath, U. (2007) *Konfigurierung von eHome-Systemen (Configuring eHome Systems)*. PhD, ISBN 978-9985-4-0519-2, 293 Pages, 2007.
 - 30 Norbistrath, U.; Mosler, C. (2006) *Tool Support for the eHome Specification, Configuration, and Deployment Process*. 1st International Workshop on Mobile Services and Personalized Environments (MSPE'06), Aachen, Germany, 16-17 November 2006, Lecture Notes in Informatics (LNI), 2006.
 - 31 Norbistrath, U.; Mosler, C. (2006): *Functionality Configuration for eHome Systems*. 16th International Conference on Computer Science and Software Engineering (CASCON'06), Toronto, Canada, 16-19 October 2006, ACM Digital Library, 2006.
 - 32 Norbistrath, U.; Mosler, C.; Armac, I. (2006) *The eHomeConfigurator Tool Suite*. 1st International Workshop on Pervasive Systems (PerSys'06), Montpellier, France, 30-31 October 2006, Lecture Notes in Computer Science (LNCS), 2006.
 - 33 Norbistrath, U.; Mosler, C. (2006) *Component-Based Development for eHome Systems*. International Conference on Computational Methods in Science and Engineering (ICCMSE'06), Chania, Crete, Greece, 27 October - 1 November 2006, Lecture Series of Computer and Computational Sciences (LSCCS), 2006.
 - 34 Norbistrath, U.; Salumaa, P.; Malik, A.; Schwerdtner, Tim (2005) *eHome Specification, Configuration, and Deployment*. Demonstration-Paper D15 on UbiComp2005, <http://ubicomp.org/ubicomp2005/programs/demos.shtml>
 - 35 Norbistrath, U.; Salumaa, P.; Schultchen, E.; Kraft, B. (2005) *Fujaba based tool development for ehome systems*. In Proceedings of the International Workshop on Graph-Based Tools (GraBaTs 2004), volume 127 of Electr. Notes in Theor. Comp. Sci., pages 89-99. Elsevier Science, 2005.
 - 36 Norbistrath, U.; Kirchhof, M. (2004) *Configuration and Deployment in eHome-Systems*. Proceedings of International Conference on Information Systems: New Generations (ISNG 2004), ISBN 0-9762601-0-7, pp. 23-28, PHASE, 2004.
 - 37 Kirchhof, M.; Norbistrath, U.; Mosler (nee Skrzypczyk), C. (2004) *Towards Automatic Deployment in eHome Systems: Description Language and Tool Support*. 2004, Springer, Lecture Notes in Computer Science, Vol. 3290, On the Move to Meaningful Internet Systems 2004: CoopIS, DOA, and ODBASE: OTM Confederated International

- Conferences 2004, CoopIS'04, DOA, and ODBASE 2004, Agia Napa, Cyprus, October 25-29. Proceedings, Part I, Robert Meersman, Zahir Tari, ISBN 3-540-23663-5, 460 pp.
- 38 Kirchhof, M.; Nagl, M.; Norbistrath, U. (2003) *EAI heißt insbesondere Integration: Probleme und die Rolle technischer Hilfsmittel (Enterprise Application Integration is in Particular Integration: Problems and the Role of Technical Utilities)*. Proceedings of ONLINE 2003, Online Verlag, 2003.
- 39 Jiao, Y.; Norbistrath, U. (2003) *Dynamische Komponententechnologien für Limited Devices*. K. Irmscher (Component Based Frameworks for Limited Devices), K.-P. Fähnrich, VDI-Verlag, 189 - 196, 13. ITG/GI-Fachtagung Kommunikation in verteilten Systemen KiVs 2003, ISBN 3-80072753-6.
- Huch, F.; Norbistrath, U. (2000) *Distributed Programming in Haskell with Ports*. 2000, Springer, Lecture Notes In Computer Science, Vol. 2011, Selected Papers from the 12th International Workshop on Implementation of Functional Languages, Pages: 107 – 121, ISBN 3-540-41919-5.

Awards

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|----------------------|---|
| 2016/09 | Honorable Mention in Mensch und Computer 2016 |
| 2010/12 | Winner of the biometry challenge at Mobile Monday Baltics |
| 2009/05 | Best paper award with <i>DougFlow — Offering Scientific Applications via Web Services</i> on The Fourth International Conference on Internet and Web Applications and Services – ICIW2009, Venice, Italy |
| 2002/03 – 2004/02 | Enhanced scholarship for Graduate College “Software for Communication Systems“, RWTH Aachen University (Aachen, Germany) |
| 1991/07 | Course for students with outstanding performance in natural sciences in high school: High school Students' (Schülerakademie) II in Braunschweig, Germany (for highly talented students): Mathematic Methods in Neurophysics |

Grants

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| 2017/03 | <i>21st Century Cities Grant Application - Makers for Disrupted Smart Communities (MDSC)</i> . Johns Hopkins University 21st Century Cities Seed Grant, \$50,000 (application is submitted, not evaluated yet) |
| 2012/11 | <i>Private Academic Cloud Computing</i> , Nazarbayev University, Astana Kazakhstan, \$800,000 (acquired myself – Principal Investigator – handed over to Prof. Michael Lewis after one year) |
| 2011/11 | Consulting Services for various companies in Estonia for <i>biometric technology evaluation</i> . \$20,000 (acquired myself) |
| 2009/03 | <i>Feasibility study for research initiative Multidimensional Contextual Graph Databases</i> , Enterprise Estonia: \$20,000 for 3 months (one of the project leaders) |
| 2008/11 | <i>Scholarship for visiting PhD student</i> , DoRa European Social Fund: \$3,000 (acquired myself) |
| 2007/10 | <i>Playstation Computing Engine (16 Sony Playstation 3)</i> , Tiger University Estonia: \$15,000 (acquired myself) |

- 2007/11 *4 supporting student scholarships for 4 years*, Estonian Science Foundation: \$20,000/annum (acquired together with Eero Vainikko)
- 2008/03 *High Performance Computing Center*, University Base Funding: \$250,000 (acquired in team)
- 2008/04 *Centre of Excellence in Computer Science (EXCS)*, European Union, Centers of Excellence: \$1,000,000/annum (\$300,000 for computer science) for 7 years (acquired in team)
- 2004/03 *3 Scholarships for students as research students*, Graduate College “Software for Communication Systems“, support for 2 years, total \$36,000 (acquired myself)

Presentations (<http://presentations.ulno.net>)

Internet of Things / Ubiquitous Systems / Home Automation / Mobile Computing

- 2017/03/26 *Making and the Internet of Things. New Perspectives in CS Education.* Colloquium at Hampden-Sydney College, Virginia, USA.
- 2017/03/19 *A Maker's Approach to Home Automation. From DIY light switch robots to affordable synchronous multi-room audio.* NoVa Maker Faire 2017, Reston, Virginia.
- 2017/02/07 *A Paradigm Shift in Teaching Programming? Try Using Hardware First.* Software Engineering Seminar, George Mason University, Fairfax Campus
- 2016/01/16 *Building an IoT Empire – Only from knowledge comes true power – IoT "Hello World"*, IoT Workshop at Hackerspace.sg, Singapore
- 2016/01/15 *Building an IoT Empire – Why we need to teach programming with an IoT motivation*, IoT Workshop at Hackerspace.sg, Singapore
- 2015/11/24 *Building Automation Lab*, invited speaker at Klimaaktiv 2015, FH Upper Austria, Wels, Austria
- 2015/11/06 *Learn to Code to Shape the World – Using the Right Motivation to Learn or Teach Coding* at Sampoerna University, Faculty of Science and Technolog, Jakarta, Indonesia
- 2015/10/03 *Learn to Program to Shape the World – Why we need to teach programming with an IoT motivation*, invited Speaker to IoT Meetup, Bandung, Indonesia
- 2015/06/02 *Rapid Prototyping and Integration of Sensors in Smart Home Environments*, Droidcon 2015, Berlin, Germany
- 2015/06/01 *Future HCI*, open house presentation at FH Upper Austria, Austria
- 2015/05/04 *Story-Driven Scenario Design*, presentation and workshop in Learnathon IATFL, Budapest, Hungary
- 2015/02/24-26 9 presentations *Future HCI* as part of Traumberuf Technik (Dream Job Engineering) at JKU Linz, Austria
- 2015/01/10 Presentation of FH Upper Austria and *From 3D Printing to De-Globalization* at Syarif Hidayatullah State Islamic University Jakarta, in Science and Technology and Economics Department, Jakarta, Indonesia.
- 2013/11/25 *Advances in Mobile Biometry*, Distributed Computing Seminar (Tartu, Estonia)

2013/11/23 *Higher Security through Mobile Biometrics*, Rigacomm 2013 (Riga, Latvia)

2013/09/22 *Mobile Biometrics*, IT-Club Nazarbayev University (Astana, Kazakhstan)

2013/03/28 *Greeting Cards were Yesterday! – Let's build our own mobile greeting APP*. Talk at 3rd Nauryz meeting at NIS at Taldykorgan, Kasakhstan

2012/03/12 *Easy security – is this possible? — How biometry will shape our future sense and use of security*. Talk at the Baltisch-Deutsches Hochschulkontor in Riga, Latvia

2012/03/09 *Presentation of Mobile Biometric Authentication* at CeBIT, Hannover, Germany

2012/02/27 – 2012/03/01 *Presentation of Mobile Biometric Authentication* at Mobile World Congress, Barcelona, Spain

2011/02/13 and 2011/03/23 *Greeting cards? Boring! Let's customize our own Android Greeting APP*. Talk at University of Tartu, Estonia for Open house day and the Informatics Olympiad.

2007/09/19 *Configuring eHome Systems* (same talk as in Aachen). Distributed Systems Seminar, University of Tartu (Tartu, Estonia)

2007/06/27 *Configuring eHome Systems*. PhD Colloquium at RWTH Aachen University (Aachen, Germany)

2007/04/17, 2007/04/19 *Software Design with FUJABA*. Distributed Systems Seminar, University of Tartu (Tartu, Estonia)

2007/01/26 *Configuring eHome Systems*. Theory Days (Rõuge, Estonia)

2006/11/30 *Component-Based Development for eHome Systems*. International Conference on Computational Methods in Science and Engineering - ICCMSE'06 (Chania, Greece)

2006/10/17 *Functionality Configuration for eHome Systems*. 16th International Conference on Computer Science and Software Engineering - CASCON'06 (Toronto, Canada)

2006/01/05 *Configuring eHome Systems*. Colloquium at University of Tartu, (Tartu, Estonia)

2005/09/13 *Demonstration: eHome Specification, Configuration, and Deployment*. UbiComp2005 (Tokyo, Japan)

2005/05/03 *The eHomeConfigurator Tool Suite*. Fujaba Developer Days 2005, University of Kassel (Kassel, Germany)

2005/10/11 *Specification, Configuration, and Deployment of eHome Systems – Status and Future Work*. Workgroup Software Engineering (Aachen, Germany)

2005/01/11 *Configuration, Specification, Deployment in eHome Systems*. Presentation and demonstration of the graduate college to the DFG, RWTH Aachen University (Aachen, Germany)

2005/02/25 *Specification, Configuration, and Deployment in eHome Systems*. Workshop Applications of Software Engineering Methods in Ubiquitous Computing, University of Tartu (Tartu, Estonia)

2004/10/29 *Towards Automatic Deployment in eHome Systems: Description Language and Tool Support*. International Conference on Cooperative Information Systems - CoopIS'04 (Agia Napa, Cyprus)

- 2004/10/20 *Specification, Configuration, and Deployment in eHome Systems.* Workgroup Software Engineering, RWTH Aachen University (Aachen, Germany)
- 2004/09/15 *Fujaba-based Tool Development and Generic Activity Mapping: Building an eHomeSpecifier* (presentation and demonstration). FujabaDays 2004 (Darmstadt, Germany)
- 2004/07/27 *Configuration and Deployment for eHome systems.* Workgroup Software Engineering, RWTH Aachen University (Aachen, Germany)
- 2004/10/02 *Fujaba based tool development for eHome systems.* International Workshop on Graph-Based Tools 2004 (GraBaTs'04), Workshop of ICGT'04, Rome
- 2003/11/04 *A Complete eHome Scenario – Status and Strategies.* Workgroup Software Engineering, RWTH Aachen University (Aachen, Germany)
- 2003/10/07 *eHome-Configuration Management – A Short Outline.* Workgroup Software Engineering, RWTH Aachen University (Aachen, Germany)
- 2003/06/17 *Configurations in eHomes.* Annual meeting of the computer science graduate colleges Germany on castle Dagstuhl. (Dagstuhl, Germany)
- 2003/06/04 *Software Engineering for Home Automation - Configurations in eHomes.* Seminar of the graduate college, RWTH Aachen University (Aachen, Germany)
- 2002/12/06 *Demonstration eHome Laboratory.* Day of Computer Science 2002, RWTH Aachen University (Aachen, Germany)
- 2002/11/06 and 2002/10/26 *Integrated eBusiness Systems and Home Automation.* Seminar of the graduate college, RWTH Aachen University (Aachen, Germany)

Information Systems / Complex Search

- 2011/10/24 *Complex Search: From Lookup to Understanding,* Keynote talk at Infocomp 2011 in Barcelona, Spain. (I also chaired 5 sessions at this conference.)
- 2009/11/13 *Search vs. Exploration – From Lookup to Understanding,* Colloquium at Georgetown University, Washington, DC, USA
- 2009/11/05 *Search vs. Exploration – From Lookup to Understanding,* Colloquium at Hampdon-Sydney College, Hampdon-Sydney, Virginia, USA
- 2009/01/31 *Inferato – Don't search inferate. Scenario based Search.,* Theory Days, Käärikuu, Estonia
- 2009/01/16 *Inferato – Don't search inferate. Scenario based Search.,* Colloquium at Georgetown University, Washington, DC, USA

Distributed and Cloud Computing

- 2013/11/27 Guest Lecture in Scientific Computing Course on *Private Academic Cloud Computing in Research and Teaching,* University of Tartu (Tartu, Estonia)
- 2013/11/20 Keynote: *Private Academic Cloud Computing in Research and Teaching – An Experience Report on Using Existing Infrastructure for Cloud Resources* at Nazarbayev University (Astana, Kazakhstan)
- 2010/08/24 *F2F private cloud demo presentation* at 9th Estonian Summer School on

- Computer and Systems Science, Pedase, Estonia
- 2008/11/21 *Friend-To-Friend (F2F) Computing for the Grid*. Distributed Systems Seminar, University of Tartu (Tartu, Estonia)
- 2008/10/28 *A Friend-To-Friend (F2F) Computing Layer for ARC*. Nordugrid 2008 Conference (Budapest, Hungary)
- 2008/10/27 *Friend-To-Friend (F2F) Computing*. II. Symposium on Innovative Software Technology – IST'2008 (Tartu, Estonia)
- 2008/08/26 *An Introduction to Friend-To-Friend (F2F) Computing*. Colloquium at George Washington University (Virginia, USA)
- 2008/06/10 *Friend-to-Friend Computing – Instant Messaging Based Spontaneous Desktop Grid*. The Third International Conference on Internet and Web Applications and Services – ICIW2008, (Athens, Greece)
- 2008/03/26 *An Introduction to F2F Computing*. Minimum Intrusion Grid Workshop, University of Copenhagen (Copenhagen, Denmark)
- 2008/01/26 *Friend-To-Friend (F2F) Computing*. Theory Days (Põlva, Estonia)
- 2007/10/03 *From Reverse Engineering to Round-Trip Engineering of Distributed Applications* (in cooperation with Oleg Batrašev). University of Tartu, Tartu Estonia

Additional Talks and Presentations

- 2013/11/29 *Makers Generation and Friends (3D Printing and virtual currencies like Bitcoins)*, Rotary Club Riga (Riga, Latvia)
- 2013/11/20 Keynote: *Private Academic Cloud Computing in Research and Teaching – An Experience Report on Using Existing Infrastructure for Cloud Resources at Nazarbayev University* (Astana, Kazakhstan)
- 2012/11/29 *Trends in IT Manager Education*, Kazakhstan IT Managers Society Summit, Almaty, Kasakhstan
- 2009/10/24 *FLOSS and the Invisible Hand of Publish or Perish*, Session Co-Lead with Nicolas Robidoux at Google Mentor Summer of Code Summit 2009 in Mountainview, California
- 2009/05/25 *DougFlow — Offering Scientific Applications via Web Services*, The Fourth International Conference on Internet and Web Applications and Services – ICIW2009, Venice, Italy (best paper award)
- 2008/04/16 *The Educational Computer Game MulliVelled*. Dorpater Dozentenabend (Tartu, Estonia)
- 2008/04/02 *The Educational Computer Game MulliVelled*. Distributed Systems Seminar, University of Tartu (Tartu, Estonia)
- 2004/03/12 *Freely Available Demonstrators and Trouble with Software Licenses*. Regina-Workshop (Aachen, Germany)
- 2003/09/26 *EAI heißt insbesondere Integration: Probleme und die Rolle technischer Hilfsmittel (EAI is Especially Integration: Problems and the Role of*

2002/08/27 *Technical Tools*). ONLINE 2003 (Düsseldorf, Germany)
Dynamic Structures in Component Based Systems. Workgroup Software Engineering, RWTH Aachen University (Aachen, Germany)

Professional Service

2013/11/20 Organizer and host of Seminar on Academic Cloud Computing at Nazarbayev University (Astana, Kazakhstan)
2011/05/11 – 2011/05/13 Organizer of 8th International Fujaba days (Tartu, Estonia)
2009/05/24 – present Committee member of SMART, URBAN, SLAECE, ICIW, IMMM, and INFOCOMP conferences
2008/09 – 2012/09 Reviewer for IEEE Transactions on Services Computing
2008/06/12 Session chair: ICIW 2008 – IWAS – Web Technologies, Frameworks, Languages, Mechanisms (Athens, Greece)
2003/09/26 Session chair: ONLINE 2003 – Symposium VI-4 Web-Services: Neue Strategien und Techniken für EAI, ONLINE 2003 (Düsseldorf, Germany)

Supervised PhD / Diploma / Master / Bachelor Theses (<http://advising.ulno.net>)

PhD

Sebastian Franken *Supporting asynchronous, discontinuous, collaborative, complex search tasks by the visualization of search trails*, 2016/06, PhD
Georg Singer *Web search engines and complex information needs*, 2012/10, PhD

Master

Stephan Hener *Swordpass: Mobile Single Sign On System*, 07/2016, Master
Matthias Hochrieser *Mobile Complex Search Support*, 07/2016, Master
Damiano Neufeld *A Password-less Mobile Authentication Framework*, 07/2016, Master
Laurenz Riedler *An Advanced Security Policy System for Android*, 2015/01, Master
Peeter Jürviste *Supporting Internet Search by Search-Log Publishing*, 2012/06, Master
Shazia Javed *Service Integration for Biometric Authentication*, 2012/06, Master
Dmitri Borissenko *Integrative Graph Filesystems*, 2011/06, Master
Vladimir Skapurelov *Java adapter for F2F Computing*, 2011/06, Master
Dmitri Danilov *3D Graph Exploring, master thesis*, 2010/06, Master
Oleg Knut *A Low Level Virtual Machine Backend for F2F Computing*, 2010/06, Master
Toomas Laasik *A Conjugate Gradient Solver Library for the Playstation 3*, 2010/06, Master
Artjom Lind *A Flexible Network Layer for F2F Computing*, 2010/06, Master
Lauri Tulmin *A Conjugate Gradient Solver on the Playstation 3 – a native approach*, 2010/06, Master

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| Sven Kirsimäe | <i>F2F Computing goes Mobile</i> , 2009/06, Master |
| Jaan Neljandik | <i>Orchestration of educational computer game environments</i> , 2009/06, Master |
| Raido Türk | <i>Topology Data Gathering for F2F Computing</i> . Master, 2008/06, Master |
| Indrek Priks | <i>Topology Visualization for F2F Computing</i> . Master, 2008/06, Master |
| Andres Luuk | <i>An MPI Layer for Friend-to-Friend Computing</i> . 2008/06, Master |
| Keio Kraaner | <i>A Framework for Friend-to-Friend Computing</i> . 2008/06, Master |
| Anton Litvinenko | <i>Automatic prediction of source code contribution type</i> . 2007/06, Master |
| Christian Pöcher | <i>Modeling Grid Application</i> . 2007/05, German Diploma |
| Philipp Böckers | <i>Automated Tests for Access Control Systems</i> . 2006/08, German Diploma |
| Tim Schwerdtner | <i>Strategies for Specification of eHome Systems</i> . 2005/11, German Diploma |
| Priit Salumaa | <i>Model Transformations in eHome Systems</i> . 2005/10, Master |
| Arash Akhoundi | <i>Distributed Automatic Deployment of eHome Configurations</i> . 2005/03, German Diploma |
| Adam Malik | <i>Information Acquisition for Automatic Deployment of eHome Systems</i> . 2005/02, German Diploma |
| Ingo Kreienbrink | <i>Classification and Search Strategies in eHome Scenarios</i> . 2004/10, German Diploma |
| Markus Klinke | <i>Instanciation of eHome Services</i> . 2004/05, German Diploma |
| Christof Skrzypczyk | <i>Description Language for eHome Configurations</i> . 2004/03, German Diploma |

Bachelor

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|----------------------|---|
| Alexander Kröll | <i>Device Unlocking as Authentication Facet</i> , 2015/09, Bachelor |
| Dominik Költringer | <i>Linux Desktops for Mobile Phones</i> , 2015/09, Bachelor |
| Alexander Gattringer | <i>Device Proximity as Authentication Aspect</i> , 2015/06, Bachelor |
| Christian Altenhofer | <i>Geofencing as Authentication Aspect</i> , 2015/06, Bachelor |
| Konrad Deubler | <i>Security in Mobile Systems</i> , 2015/06, Bachelor |
| Jürgen Punz | <i>VR Drivers for Different Environments</i> , 2015/06, bachelor thesis 2 |
| Katherina Sick | <i>VR Environments based on Google Cardboard-like VR Viewers</i> , 2015/06, bachelor thesis 2 |
| Lukas Binder | <i>VR Games for official demonstrations</i> , 2015/06, bachelor thesis 2 |
| Roman Benetseder | <i>3D Scan Tutorial</i> , 2015/06, bachelor thesis 2, |
| Tobias Zuber | <i>Tutorial for Multi Extrusion 3D Printing</i> , 2015/06, bachelor thesis 2 |
| Martin Vels | <i>Development of pharmaceutical information environment for iPhone</i> , 2011/06, Bachelor |
| Gleb Stsenov | <i>Measuring mobile search tasks on Android platform</i> , 2011/06, Bachelor |

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| Madis Kapsi | <i>Usability Improvements for the Friend-to-Friend Computing Pidgin Plugin</i> , 2010/06, Bachelor |
| Peeter Jürviste | <i>Email Information Concentrator</i> , 2010/06, Bachelor |
| Olga Agen | <i>Distributed log tracer framework</i> , 2010/06, Bachelor |
| Gert Palok | <i>Port Forwarding with Universal Plug and Play</i> , Bachelor, 2010/06 |
| Dmitri Melnikov | <i>F2F Computing as a Base for Network Games – Bub's Brothers</i> , 2009/06, Bachelor |
| Rauno Raudpuu | <i>Whiteboard for F2F Computing</i> , 2009/06, Bachelor |
| Maido Käära | <i>F2F Pidgin Plugin</i> , 2009/06, Bachelor |
| Janno Toots | <i>Skype adapter for Friend-to-Friend Computing</i> . 2008/06, Bachelor |
| Artjom Lind | <i>NAT-traversal for P2P systems in Java</i> . 2008/06, Bachelor |

Teaching Record (<http://teaching.ulno.net>)

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|-------------------------------------|---|
| Lecture, Spring 2017 | Software Architecture |
| Lecture, Fall 2016 | Home and Building Automation |
| Lecture, Spring 2016 | Home and Building Automation |
| Lecture, Fall 2015 | The Beauty of Programming (Seminar on programming introduction based on Snap!) |
| Lecture, Summer 2015 | Home and Building Automation (intense one week program though Erasmus at University of Kassel, Germany) |
| Lecture, Spring 2015 | Home and Building Automation |
| Lecture, Spring 2015 | Algorithms and Data Structures |
| Lecture, Spring 2014 | Mobile Computing |
| Lecture, Spring 2014 | Operating Systems (based on Linux) |
| Lecture, Fall 2013 | Computer Systems and Organization |
| Lecture, Fall 2013 | Software Engineering |
| Lecture, Spring 2013 | Operating Systems (based on Minix) |
| Lecture, Spring 2013 | Fundamentals of Programming |
| Lecture, Fall 2012 | Computer Systems and Organization |
| Lecture, Fall 2012 | Web Programming and Problem Solving |
| Supervision of Lecture, Spring 2012 | Systems Administration |
| Supervision of Lecture, Fall 2011 | Systems Modeling |
| Seminar, Fall 2011 | Distributed Systems Seminar |
| Lecture, Spring 2011 | Systems Administration |
| Seminar, Spring 2011 | Distributed Systems Seminar |
| Lecture, Fall 2011 | Systems Modeling |
| Seminar, Fall 2010 | Distributed Systems Seminar |
| Seminar, Spring 2010 | Distributed Systems Seminar |
| Lecture, Fall 2009 | Introduction to Informatics: Distributed Systems (one session) |
| Lecture, Fall 2009 | Software Engineering: Modeling (one session) |

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| Lecture, Fall 2009 | Software Modeling: Story driven Modeling and Objects first (one session) |
| Seminar, Fall 2009 | Distributed Systems Seminar |
| Lecture, Spring 2009 | Systems Modeling |
| Seminar, Spring 2009 | Distributed Systems Seminar |
| Lecture, Fall 2008 | Software Engineering: Two sessions: Modeling and and Advances in Software Architecture |
| Seminar, Fall 2008 | Distributed Systems Seminar |
| Seminar, Spring 2008 | Software Engineering in Distributed Systems |
| Lab course, Spring 2008 | P2P Grid Software Project / Friend to Friend (F2F)-Computing |
| Seminar, Spring 2008 | Distributed Systems Seminar |
| Seminar, Fall 2007 | Software Engineering in Distributed Systems |
| Lab course, Fall 2007 | Spontaneous Desktop GRID: Friend to Friend (F2F)-Computing |
| Lecture, Fall 2007 | Software Engineering: Two sessions: Modeling and and Advances in Software Architecture |
| Lab course, Spring 2007 | P2P Grid Computing |
| Lecture, Spring 2007 | Software Architecture |
| Lecture, Winter 2004/2005 | Introduction to Computer Science, Programming in Modula 3 |
| Seminar, Winter 2004/2005 | Component Based Embedded Systems: Design, Configuration, and Deployment |
| Lab course, Summer 2004 | Tool Support for the eHome Process |
| Lab course, Winter 2003/2004 | Tool support for the Specification of eHome Services |
| Lecture, Winter 2003/2004 | Introduction to Computer Science, Programming in Modula 3 |
| Lab course, Summer 2003 | Ubiquitous Computing in eHomes |
| Seminar, Winter 2002/2003 | Ubiquitous Computing |
| Lecture, Winter 2002/2003 | Introduction to Computer Science, Programming in Modula 3 |
| Seminar, Summer 2002 | Noblesse Oblige: XML-Schema and other Graph Types - Applications and Extensions of the Graph Rewriting Language PROGRES |

Hobbies

Swimming, cycling, ballroom dancing (standard), salsa, singing, baking, cooking

Arlington, VA, 2017/04/04

Ulrich Norbistrath