



Dr. Markus Scheidgen

8. April 1978
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Resume

After receiving my diploma in computer science (Dipl-Inf.) with a strong focus on object-orientation and modeling as well as an extended industry experience as a software developer, I wrote my PhD (Dr. rer. nat.) on domain modeling and domain specific languages on *NaFöG* and *DFG* scholarships. After acquiring experience in managing industry IT-projects, I worked as a postdoc in a graduate school (*DFG Graduiertenkolleg*) and assistant professor (wissenschaftlicher Mitarbeiter). Here, I researched software modeling for scientific data, scientific work-flows, and data visualization, thus combining aspects of modeling, sensor networks, big-data technologies, data visualization, and web applications.

CV

Experience		Software Projects
today	<ul style="list-style-type: none">(lead) developer of open-source projects for large software models, models for the web, visualization, or sensor networksleading small teams and advising student projectspublishing scientific papers; presenting at, reviewing for, and organizing international conferencesdesigning and giving lectures on model-based engineering and meta-modelingparticipation in the application for research funding	<ul style="list-style-type: none">d3ng interactive visualization with Angular2 and d3.jsxraw Java-based type-safe REST-API librarylarge software models (emf-frag) and mining code repositories (srcrepo) with Scala, MongoDB, HBase, and GITclickwatch sensor-network management with Eclipse, EMF and MIT Click.
2017		
2009	<ul style="list-style-type: none">project office and later project manager for >1k man day projects in complex and politically charged environmentsAdvising and moderation in the design of large scale IT infrastructures.	<ul style="list-style-type: none">ITIL processes for eGK (gematik) and Security processes for eGK (DAK)
2009		
PhD	<ul style="list-style-type: none">researching languages as first class citizens in model-based software engineeringdesign and implementation of model-based frameworks for language notations, structures, and semantics.	<ul style="list-style-type: none">TEF for dynamic textual editors for DSLs with Eclipse and EMFAMOF repository implementation of OMG's CMOF model and XML
2004		
diploma	<ul style="list-style-type: none">network and protocol modeling and simulation of ad-hoc wireless networks	<ul style="list-style-type: none">Ad-hoc wireless network simulations with OpNET
2003		
2002	<ul style="list-style-type: none">model-based software development in document- and test-heavy process based-on international telecommunication standards for systems with 5 nines reliability	<ul style="list-style-type: none">Smart telco services and WIN/CAMEL protocol adapter for Siemens
1999	<ul style="list-style-type: none">software development and maintenance as part of the R&D teamworking with customers and integrating 3rd party software products	<ul style="list-style-type: none">Web-based graphical UI for content management with JSP and servlets

Publications (excerpt)

- Creating and Analyzing Source Code Repository Models – A Model-based Approach to Mining Software Repositories; Markus Scheidgen, Joachim Fischer, Martin Schmidt; Proceedings of the 5th International Conference on Model-Driven Engineering and Software Development, MODELSWARD 2017, Porto, Portugal, Feb 19-21, 2017
- Metamodeling vs Metaprogramming: A Case Study on Developing Client Libraries for REST APIs; Markus Scheidgen, Sven Efftinge, Frederik Marticke; 12th European Conference, ECMFA 2016, Held as Part of STAF 2016, Vienna, Austria, July 6-7, 2016; Springer LNCS
- Evaluation of Model Comparison for Delta-Compression in Model Persistence; Markus Scheidgen; Workshop paper at BigMDE 2016 (at STAF 2016), Vienna, Austria, July 6-7, 2016; CEUR
- Model-Driven Engineering for Smart Cities; Joachim Fischer, Ina Schieferdecker, Holger Schlingloff, Markus Scheidgen (eds); Berlin, Germany, October 12th-14th, 2015, Spring LNCS;
- Random Generation of Large Software Models for Benchmarking; Markus Scheidgen; Workshop paper at BigMDE 2015 (at STAF 2015), L'Aquila, Italy, July 23th, 2015; CEUR
- Model-based Mining of Software Repositories; Markus Scheidgen and Joachim Fischer; 8th Systems and Modeling Conference, Valencia, Spain, September 29th, 2014; Springer LNCS
- Refactorings in Language Development with Asymmetric Bidirectional Model Transformations; Martin Schmidt, Arif Wider, Markus Scheidgen, Sebastian von Klinski, Joachim Fischer; 16th International System Design Languages Forum Model-driven dependability engineering, Montreal, Canada, June 26-28 2013; Spring LNCS
- From Earthquake Detection to Traffic Surveillance – About Information and Communication Infrastructures for Smart Cities; Joachim Fischer, Jens-Peter Redlich, Björn Scheuermann, Jochen H. Schiller, Mesut Günes, Kai Nagel, Peter Wagner, Markus Scheidgen, Anatolij Zubow, Ingmar Eveslage, Robert Sombrutzki, Felix Juraschek; Keynote Paper in System Analysis and Modeling: Theory and Practice – 7th International Workshop, SAM 2012, Innsbruck, Austria, October 1-2, 2012. Revised Selected Papers; LNCS Springer; 2013
- Automated and Transparent Model Fragmentation for Persisting Large Models; M. Scheidgen, A. Zubow, J. Fischer, T. H. Kolbe; ACM/IEEE 15th International Conference on Model Driven Engineering Languages & Systems (MODELS); Innsbruck; 2012; LNCS Springer
- EMF Modeling in Traffic Surveillance Experiments; M. Scheidgen, A. Zubow; International Workshop on Modeling of the Real World (at MODELS 2012); ACM Digital Library 2012
- Map/Reduce on EMF-Models; M. Scheidgen, A. Zubow; International Workshop on Model-Driven Engineering for High Performance and Cloud computing (at MODELS 2012); ACM Digital Library 2012
- HWL – A High Performance Wireless Sensor Research Network; M. Scheidgen, A. Zubow, R. Sombrutzki; IEEE International Conference on Networked Sensing Sys-

tems (INSS); Antwerp; 2012; IEEE

- Type-Safe Model Transformation Languages as Internal DSLs in Scala; George, L., Wider, A., Scheidgen, M.; Proceedings of the 5th International Conference on Model Transformation (ICMT'12), Prague, 2012, LNCS Vol. 7307, LNCS Springer 2012
- ClickWatch – An Experimentation Framework for Communication Network Test-beds; M. Scheidgen, A. Zubow, R. Sombrutzki; IEEE Wireless Communications and Networking Conference (WCNC); Paris; 2012; IEEE
- Combining Graphical and Textual Editing; European Conference on Model Driven Architecture: Foundations and Applications (ECMDA); Berlin 2008; Springer
- Domain Specific Modeling Languages (DSML); Workshop at Modellierung 2008 Berlin; CEUR Workshop Proceedings
- Human Comprehensible and Machine Processable Specifications of Operational Semantics; European Conference on Model Driven Architecture: Foundations and Applications (ECMDA); Markus Scheidgen, Joachim Fischer; Haifa, 2007; Springer
- A Modelbased Standard for SDL; Andreas Prinz, Markus Scheidgen, and Merete Skelton Tveit; In 12th SDL Forum, Paris 2007; Springer
- Model Pattern for Model Transformations in Model Driven Development; 4th MBD and 3th MOMPES Workshop; Potsdam 2006; IEEE
- CMOF-Model Semantics and Language Mapping for MOF 2.0 Implementations; 4th MBD and 3th MOMPES Workshop; Potsdam 2006; IEEE
- ULF-Ware – An Open Framework for Integrated Tools for ITU-T Languages; 12th SDL Forum 2005; J. Fischer, A. Kunert, M. Piefel, M. Scheidgen; Grimstad, June 2005; Springer
- A Metamodel for SDL-2000 in the Context of Metamodeling ULF; 4th SDL and MSC Workshop, J. Fischer, M. Piefel, M. Scheidgen; Ottawa, July 2004; Springer

Scholarships and Awards

- DFG scholarship as part of the Graduiertenkollegs METRIK at the Humboldt-Universität zu Berlin, April 2006
- scholarship granted by the city Berlin following the Nachwuchsförderungsgesetz (NaFöG) in 2005 and 2006
- Institutspreis of the Instituts für Informatik (HU Berlin) awarded for the best master thesis, Juli 2004

Other Activities

- 17th International Conference on System Design Languages: SDL Forum 2015, chair
- International Journal on Software and Systems Modeling, Springer, reviewer
- SDL Forum Conferences, since 2015, PC member
- DSML Workshop at Modellierung, 2008, chair
- BigMDE Workshop at STAF, since 2013, PC member
- Modevva Workshop at Models, since 2012, PC member
- EXE Workshop at Models, since 2015, PC member
- Modellierung, 2008, publicity chair