
CV Markus Völter

Name Markus Völter
Born February 14, 1974 in Heidenheim, Germany
Degree Dipl. Ing. Physikalische Technik, FH



Further details are at www.voelter.de.

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Short Profile

Markus Voelter works as an independent consultant, developer and coach on software technology and engineering for itemis, Germany. He focuses on software architecture, model-driven software development and DSLs, as well as product line engineering. In addition, Markus regularly publishes articles, papers, books, and patterns, and speaks at national and international conferences. When not working, he spends his time flying sailplanes or creating podcasts. Markus can be reached via voelter@acm.org.

Education & Professional Work

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| 1993 | Abitur at Werkgymnasium Heidenheim/Brenz
<i>Average grade 1,3</i> |
| 1993-1994 | Community service at Heidenheim Central Hospital,
department of finance and controlling
<i>Creation of several statistics with Excel, development of
several support tools for data entry and evaluation</i> |
| 1994-1999 | Study of Technical Physics at Ravensburg-Weingarten
Technical University
<i>Average grade 1,3. Specialization in robot and sensor
technology. Practical semesters at ict (development of a
medical lab information system in Clipper), DASA
(CORBA with C++ and Java) and at Heidenheim Central
Hospital (Intranet, Internet).</i> |
| 1995-2000 | Independent Consultant: völteRSOFTWARE |

Part-time during my study, later full-time. Several development, training and consulting projects, among others for IBM and DaimlerChrysler.

2000-2002 MATHEMA AG, Senior Consultant, Technical Lead for MATHEMA's Ulm office, and chief technologist

My main task at MATHEMA was technical lead of the Ulm office. Additionally, I was assigned several projects as consultant (architecture, technology, J2EE) and gave trainings on OO-related topics. Within MATHEMA I was also responsible for the technological orientation of the company, for the evaluation of new technologies, and for the education of the employees.

2002-current Independent Consultant in the context of voelter - ingenieurbüro für softwaretechnologie

Focus on software architecture, component technologies, model-driven software development and DSLs as well as product line engineering in embedded and enterprise systems.

2009-current Independent Coach & Consultant for itemis

itemis opened an office in Stuttgart, focusing on Model-Driven Development and Product Line Engineering in embedded systems

Projects

The following list is a selection of the projects on which I worked between 1995 and today, in different roles.

- Development of a medical lab information system (Clipper)
- Development of a administration system for a large hospital (Delphi, SQL Server)
- Development of ZBS's n-sell web shop system (Java, CORBA)
- OO consulting and analysis support for a big IBM/DaimlerChrysler vehicle diagnosis project
- Development of a web interface for a clinical information system
- Trainings and workshops on advanced OO, UML, architecture and patterns
- Chief architect of the vehicle diagnosis project mentioned above (Java, MQSeries, CORBA)
- Architecture for PSA's distributed diagnosis system (J2EE)
- Architecture and component model for Himalaya II (dvg Hannover), (probably one of the biggest J2EE projects worldwide)
- Consulting for ESO's ALMA project, focus on component architecture and development process (Java, CORBA, C++)

- J2EE architecture and OSGi integration for GM's Proactive Maintenance project (J2EE, OSGi)
- Chief Architect client and server for DaimlerChrysler's Daisy project (Java, Eclipse, J2EE)
- Consultant for model-driven implementation of an embedded component architecture for BMW; Autosar Prototype Implementation
- Consultant for Mobile Phone Software Architecture (SIEMENS)
- Architectural Consulting for large, distributed Peer-To-Peer System (web.de)
- Consulting for T-Mobiles enterprise-wide SOA
- Model-Driven Tool integration for ZF Friedrichshafen
- Consultant and Architect for PrismTech's MDD tooling initiative
- Working with SIEMENS in AMPLE (Aspect-Oriented Model-Driven Product Line Engineering) EU research project
- MDSD consulting for JAIN SLEE platform development at SIEMENS Networks
- Many smaller consulting gigs for major companies wrt. to introducing model-driven development and openArchitectureWare for example at Wieland, Liebherr, FJA, Continental, web.de, Siemens A&D, Rohde & Schwarz, Bosch and others.
- Senior independent consultant for Intentional Software helping out with customers, PR and tool development
- Independent Consultant and Coach for itemis
- Development of various DSLs for many domain, e.g. embedded component architectures, refrigerator cooling algorithms, hearing aid configuration
- Technical lead for a research project on using DSLs and language extension of C for embedded development: <http://mbeddr.com>

Software Development Skills

My current core competencies include language engineering for DSLs, code generation and model transformation, software architecture and product lines. While these are tool-independent, I have a lot of experience with Eclipse Modeling, Xtext and JetBrains MPS.

The following provides a more complete overview of my IT related skills:

- Languages: Scala, Java, C++, C#, Pascal, Delphi, SQL; some Ada, Smalltalk, Python
- Middleware: CORBA, .NET Remoting, Java RMI, MoMs, different RDBMS, several XML Technologies
- Platforms: J2EE, EJB, JMS, .NET, Spring, Hibernate, JSF
- OO: Frameworks, Patterns, meta-level architectures

- Architecture: distributed systems, redundancy, load-balancing, embedded systems, AUTOSAR
- Experience with the architecture of large, distributed systems
- Experience with architecting distributed embedded systems
- Middleware and Component Technology Expert
- Eclipse Plugin Development
- UML Expert; Modelling tools include Enterprise Architect, MagicDraw, various IBM Rational tools
- Recognized Expert on Model-Driven and Generative Software Development, specifically Eclipse Modeling Xtext, JetBrains MPS
- Recognized Expert on Domain Specific Languages, lots of practical experience using DSLs in industry projects
- Architecture Specification (DSL) and Communication
- Product Line Engineering methodologies and tools (e.g. pure::variants)

Other Skills

- Very good skills in written and spoken english
- Written and Spoken Technical communication
- Working with customers
- System and requirements specifications
- Developer team lead
- Marketing Communication and PR
- Slide design and presentation
- Audio technology and podcasting

Current Interests

- Language Engineering for DSLs
- Projectional Editors and Language Workbenches (JetBrains MPS, Intentional Software)
- DSLs in Embedded Systems and Product Lines
- DSLs targeted to non-programmers
- DSLs in Product Line Engineering

Presentations, Workshops and Publications

This is a selection of my presentations and workshops on various conferences, as well as of my publications on conferences and in magazines (more at www.voelter.de/conferences and [/publications](http://www.voelter.de/publications)):

- Book *Server Component Patterns – Component Infrastructures Illustrated with EJB* (with Alexander Schmid and Eberhard Wolff). Published by John Wiley and Sons as part of their well-known *Pattern Series*.

- Book *Remoting Patterns – Patterns for enterprise, internet and embedded middleware* (with Michael Kircher and Uwe Zdun). Published by John Wiley and Sons as part of their well-known *Pattern Series* in 2004.
- Book *Modellgetriebene Softwareentwicklung* (with Tom Stahl and Jorn Bettin), dPunkt, 2005
- Book *Model-Driven Software Development* (with Tom Stahl), Wiley, 2006
- Book *Modellgetriebene Softwareentwicklung* (with Tom Stah, Sven Efftinge and Arno Haase), 2nd edition, dPunkt, 2007
- Co-Editor of *Pattern Languages of Programming, Volume 5* book, Addison-Wesley, 2006
- Book *Software-Architektur* (with many other authors), Spektrum Akademischer Verlag, 2005
- Articles in german and international magazines (incl. IEEE Software, JOT, InfoQ, ObjektSpektrum, iX, JavaMagazin)
- Conference presentations, tutorials and workshops at national and international conferences (OOPSLA, ECOOP, MoDELS, SPLC, Embedded World, EclipseCon, GPCE, CodeGeneration, OOP, JAX)
- Papers and Patterns (at MoDELS, SPLC, EuroPLOP), see <http://voelter.de/publications/papers.html>
- Founder and Editor of the world's premier podcast on Software Engineering: Software Engineering Radio

Teaching

- FH Ulm, summer semester 2002, "Software-Architektur"
- FH Ulm, summer semester 2003, "Software-Engineering"
- University of Leipzig, winter 2006, "Model-Driven Development"

I am also a regular guest speaker in lectures at various universities.

Podcasting

- Founder and Editor of the Software Engineering Radio podcast (www.se-radio.net), one of the premier podcasts on Software Engineering
- Cofounder and Coeditor Omega Tau, Science and Technology in your Headphones, <http://omegataupodcast.net>
- OOPSLA 2008 conference podcast
- OOPSLA 2007 conference podcast
- OOP 2009, 2010 and 2011 conference podcasts

Community Activities

This list provides an overview of the things I do outside of my regular work:

- Eclipse.org comitter for Eclipse Modelling and openArchitectureWare
- Core developer for openArchitectureWare

- OOPSLA/SPLASH 2010 Onward Essays Program Committee member
- MODELS 2010 Applications Track Program Committee member
- Sosym Journal reviewer
- ECMFA 2010 Application program committee member
- Code Generation 2009 and 2010 program committee member
- GPCE 2009 Practice Track Program Committee member
- MODELS 2009 Empirical Results Track Program Committee member
- ICSE 2009 Practice Track Program Committee member
- MODELS 2008 Program Committee and Experience Track co-chair
- OOPSLA 2008 Tutorial Committee and Demo/Poster Committee
- IEEE Software Special Issue on Software Patterns Guest Editor
- IEEE Software Industry Advisory Board member as well as Paper Reviewer
- Models 2007 conference program committee
- OOPSLA 2006 Poster Committee
- Eclipse.org committee for the openArchitectureWare project
- organizer and program committee member of various international workshops
- EuroPLoP 2002 through 2007 program committee
- Program committee for OOPSLA 2003 special track on Domain-Driven Development
- GPCE 2003 demonstrations chair
- EuroPLoP 2002 program committee, organizing the pattern writing group
- OOPSLA 2001 educator's symposium committee
- A shepherd for various *PLoP conferences
- Member of Hillside Europe e.V.
- Member of the Pedagogical Patterns Project
- Member of the ACM
- Reviewer for various publishers such as Wiley, dPunkt, Pearson, ...