

Curriculum Vitae

Personal

NAME Normen Müller
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Personal Profile

- Ph.D. in Computer Science: Comprehensive knowledge on theoretical foundations of change management and on formal (mathematical) methods
- 7 years of experiences in software specification, engineering, and project management
- Strong analytical skills, teamwork, initiative, resilience, in-depth knowledge of object-oriented and functional paradigms

Educational Background

SINCE JUL. '05 **Ph.D. student in Computer Science** at Jacobs University Bremen, Germany, graduation in March 2010
Topic: Change Management on Semi-structured Documents
<http://code.google.com/p/locutor>
Focus: Specification and implementation of algorithms for semi-automated change management on XML documents, semantic difference analysis, change impact analysis, and automatic adaptation to changes

JUL. '05 – JUL. '06 **Ph.D stipend** at Jacobs University Bremen

OCT. '95 – SEPT. '05 **Study of Computer Science** at Technische Universität Darmstadt, Germany. Study was deferred to establish the *apartis* AG, leaving the company in 2002 to continue the study, completion of the diploma thesis at the Jacobs University Bremen
Degree: Diploma (equivalent to a Master), grade 2.0¹
Majors: Semantic and program verification, mathematical logic, algebra, and mathematical foundations in functional programming
Minors: Mathematics, information management
Thesis: Representations of VeriFun programs and proofs in OMDoc, grade 1.0

SEPT. '82 – JUN. '95 **School education** at Stefan-George-Gymnasium, Bingen, Germany
Degree: Abitur (university-entrance diploma), grade 2.5
Major: Mathematics, Physics, English, and Geography

¹The German grading system is based on a scale of 1 to 5, with 1 being the highest and 5 denoting “fail”.

Work Experiences

- SINCE JAN. '09 **Developer** at the Scala XML project.
Responsibilities: Specification and implementation of new core algorithms for XML processing based on explicit variance annotations on type constructors, existential types, and fundamentals on equality theory for pattern matching.
- SINCE JAN. '09 **Contributor** in the specs project (<http://code.google.com/p/specs>). The project aims at developing a Behavior-Driven-Design framework for the creation of software specifications.
Responsibilities: Create test cases, code reviews.
- SINCE JAN. '08 **Project leader** of the Ontology-Driven Management of Change project at the German Research Center for Artificial Intelligence
Responsibilities: Specification and implementation of core algorithms for change management on XML documents
- SINCE MAR. '07 **Project leader** of the JOMDoc project
<http://omdoc.org/jomdoc>
Responsibilities: Coordination of the development of a collection of Java libraries for the manipulation of documents in the Open Mathematical Document (OMDoc) format (<http://omdoc.org>)
- SINCE JUL. '07 **Contributor** in the SVNKit project (<http://svnkit.com>).
Responsibilities: Create test cases, specification and implementation of core algorithms and code reviews.
- JUL. '05 – DEZ. '07 **(Remote-) Developer** in the ConneXions project (<http://cnx.org>).
Responsibilities: Administration of the German ConneXions instance at Jacobs University Bremen, integration of OMDoc and porting the system infrastructure from CVS to Subversion.
- JUL. '05 – MAY '07 **Teaching assistant** to Michael Kohlhase (Jacobs Univ.)
Responsibilities: Supervising the seminar “Semantic Web and Knowledge Representation” as well as the lectures “Computational Semantics for Natural Language” and “General Computer Science”
- OCT. '04 – FEB. '05 **Teaching assistant** to Prof. K. Weihe (Technische Universität Darmstadt)
Responsibilities: Supervising a lecture on programming in C++
- FEB. '99 – JUN. '99 **Consultant** at *Centeon Bio-Services Inc.* (now Aventis Bio-Services Inc.), Knoxville, US, on behalf of *apartis*
Responsibilities: Business information management, system implementations, ORACLE databases support, and project validation
- JAN. '98 – DEC. '02 **Project manager** at the *apartis Information Management AG*, co-founder, member of the board of directors
<http://www.apartis.com>
The *apartis* team develops individual software for medium and large enterprises, in particular, for the pharmaceutical industry and offers consulting and training services. The company is based in Germany and has an international clientele.
Responsibilities: Consulting, client support, object-oriented analysis and design, frontend and backend programming (C, C++, Visual C++, Java, and SQL), in-house and company-external training
Projects: Database for Hoppenstedt, BASIS-Online for Berentzen, Encryption/ test algorithms for various projects, MicroLab3 for EnBW, pharmaceutical ReportTool for Hamilton

MAI '95 – DEZ '97

System developer at *microtec electronic GmbH*

Responsibilities: Development of software for Windows 3.11/ 95/ NT and UNIX using SQL-Windows, Java, and C/ C++, implementation of client-server applications, development tools, and libraries, database design and tuning (mainly ORACLE and Microsoft SQL-Server), object-oriented analysis and design using UML, implementation of encoding and verification algorithms

Memberships

SINCE JUN. '07

Member of the Mathematical Knowledge Management Interest Group
<http://www.mkm-ig.org/>

SINCE JUN. '07

Member of the OpenMath (<http://www.openmath.org>) society
The society specifies the XML-based OpenMath format for the machine-processable representation of mathematical formulae. MathML (<http://www.w3.org/math>) specifies a display format for mathematical formulae, which is supported by most browsers.
Contributions: Reference implementation for the OpenMath to presentation MathML conversion

MAR. '06 – MAR. '08

Member of the Anti-Discrimination Club at Jacobs University Bremen, treasurer, since Jun. '07 president

Miscellaneous

LANGUAGE SKILLS

German mother tongue
English fluent
Latin, French basic knowledge

OPERATION
SYSTEMS

Linux/ Unix, Mac OS X, Windows NT/ 2000

PROGRAMMING
LANGUAGES

Scala/ Java (Parsing, Regular Expressions, XML processing, Threads, Collections, EJB, JDBC, JSP, Swing, Reflection, Networking), C, C++, C#, F#, Lisp, Haskell, SML, Prolog, PHP, Python, SQL, bash, ILOG OPL

WEB
TECHNOLOGIES

XML, (X)HTML, XSLT, CSS

DATABASE
TECHNOLOGIES

Oracle 8/ 9i, MySQL, MS Access, MS SQL Server, PL/ SQL

FRAMEWORKS

.NET, Specs, ScalaCheck, ScalaTest, Struts, JUnit, Log4J, Zope, Plone

IDE/ TOOLS

Eclipse, IntelliJ, Netbeans, JBuilder, XCode, MS Visual Studio, Emacs, CVS/ Subversion, Together, Rational Rose, UML, desing patterns, CMS, DMS, and MS Office

CERTIFICATES

Logic Works ERwin, *Logic Works* BPwin, Windows NT

HOBBYS

Tennis, swimming, and Science Fiction