

## Curriculum Vitae



### Personal information

Name	<b>Stefan Schulz</b>
Address	Wiener Str. 5/4, 8020 Graz, Austria
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Website	<a href="http://purl.org/steschu">http://purl.org/steschu</a>
Nationality	German
Date of birth	06 July 1963
Gender	Male

**Work experience  
(current position)**

Dates	since 2010 (ongoing)
Occupation or position held	University Professor
Main activities / responsibilities	<p>R &amp; D</p> <ul style="list-style-type: none"><li>- Biomedical terminologies and classification systems</li><li>- Biomedical ontologies</li><li>- Secondary use of clinical big data</li><li>- Semantic interoperability of electronic health records</li><li>- Biomedical knowledge engineering</li><li>- Knowledge acquisition and management</li><li>- Information retrieval</li><li>- Natural language processing</li><li>- Lexicography</li><li>- Clinical and research data integration</li></ul> <p>Teaching:</p> <ul style="list-style-type: none"><li>- Biomedical databases, information retrieval, eLearning</li><li>- Medical coding / classification, electronic health records, biomedical informatics</li><li>- Biomedical literature retrieval</li><li>- Supervision of BSc, MSc, and PhD theses</li></ul>
Employer name / address	Medical University of Graz Auenbruggerplatz 2/V 8036 Graz (Austria)
Type of business or sector	Education and Research

**Work experience  
(earlier positions and  
activities)**

(reverse chronological order)

Dates	since 1994 (ongoing)
Occupation or position held	- Research Assistant (1994 - 2003) - University Lecturer (2003 - 2007) - Associate Professor, since 2008 - Visiting professor, since 2003
Main activities / responsibilities	R & D - Biomedical ontologies and terminologies - Medical knowledge engineering - Information retrieval and text mining - Development of multilingual medical language resources - Development of disease / procedure coding software - Development, maintenance and evaluation of online content services for the university hospital and the medical school - Development and evaluation of medical eLearning software - Development of GUI components in a client/server oriented hospital information system - Statistical analysis of administrative hospital data  Teaching: - Biostatistics - Biomedical databases, information retrieval, eLearning, medical coding / classification, electronic health records, biomedical informatics - Supervision of BSc, MSc, and doctoral theses (medical school and faculty for applied sciences, Freiburg)
Employer name / address	University Medical Center Freiburg, Hugstetter Str. 49, D-79106 Freiburg
Type of business or sector	Education and Research
Dates	since 2007 (ongoing)
Occupation or position held	- Scientific Advisor
Main activities / responsibilities	- Advisory on multilingual terminology services
Employer name / address	Averbis GmbH, Tennenbacher Straße 11, D-79106 Freiburg
Type of business or sector	IT

Dates	Nov – Dec 2003 and Nov 2006 – May 2007
Occupation or position held	Guest lecturer / researcher
Main activities / responsibilities	- Biomedical Ontologies and Terminology Systems - Cross-language term-mapping - Medical thesaurus management - Natural language processing and information retrieval
Employer name / address	Pontífica Universidade Católica do Paraná, Rua Imaculada Conceição, 1155, Prado Velho, CEP: 80215-901 Curitiba, Brazil
Type of business or sector	Education and Research
Dates	June 2001, June 2002
Occupation or position held	Lecturer (extension course for physicians)
Main activities / responsibilities	- Teaching in Medical Linguistics and Information Retrieval
Employer name / address	Akademie der Ruhr-Universität gGmbH, D-44801 Bochum
Type of business or sector	Education
Dates	1999 - 2000
Occupation or position held	Consultant
Main activities / responsibilities	- Training and support of several hospitals in Southern Germany in the transition to the ICD-10 classification
Employer name / address	Self-employed
Dates	1997 - 2000
Occupation or position held	Teacher
Main activities / responsibilities	- Foundation of Software development (Programming in Visual Basic) - Web design
Employer name / address	DAA School of Medical Documentation, Rehlingstr. 12b, D-79100 Freiburg
Dates	1996 - 1997
Occupation or position held	Software developer
Main activities / responsibilities	- Development of a simulator for virtual temporal bone drilling for on behalf of Cochlear Ltd and ENT clinic, University of Freiburg

Employer name / address	Self-employed
Dates	1993 - 1994
Occupation or position held	Physician
Main activities / responsibilities	Ambulance services
Employer name / address	BezGS München, Bahnhofstr. 2a, D-82166 Gräfelfing (free time-based collaboration)
Dates	1991 - 1992
Occupation or position held	Physician (Resident)
Main activities / responsibilities	Surgery and Traumatology
Employer name / address	Kreiskrankenhaus Kandel, Luitpoldstraße 14, D- 76870 Kandel
Type of business or sector	Health Care
Dates	1991 - 1992
Occupation or position held	Teacher
Main activities / responsibilities	Pathology and Physiology
Employer name / address	School of Nursing, Kreiskrankenhaus Kandel, Luitpoldstraße 14 D-76870 Kandel
Type of business or sector	Health Care
Dates	1991
Occupation or position held	Physician (Resident)
Main activities / responsibilities	Internal Medicine, Primary health care
Employer name / address	Praxis Dr. Neuber , Kapellenstraße 76437 Rastatt, Germany
Dates	1990
Occupation or position held	Student researcher
Main activities / responsibilities	Writing research papers
Employer name / address	Heidelberg University, Institute for Public Health
Type of business or sector	Health Care
Dates	1982 - 1989

Occupation or position held	- Nurse assistant
Main activities / responsibilities	- Orthopedics, Internal medicine, Surgery, Urology, ICU (including civil service, temporary weekend and night services)
Employer name / address	Klinikum Karlsbad, Guttmannstraße 1, D-76307 Karlsbad Diakonissenkrankenhaus Mannheim, Speyerer Str. 91-93, D-68163 Mannheim Klinikum Mannheim Theodor-Kutzer-Ufer 1-3, D-68167 Mannheim
Type of business or sector	Health Care

## Education and training

Dates	2003
Title of qualification awarded	German Habilitation Degree
Principal subjects/ occupational skills covered	- Biomedical Ontologies - Representation of Anatomical Knowledge - Description logics
Name and type of organisation providing education and training	University Freiburg, Fahnenbergplatz, D-79085 Freiburg <a href="http://www.uni-freiburg.de">http://www.uni-freiburg.de</a>
Dates	2002 - 2004
Title of qualification awarded	Teaching Certificate Higher Education (Zertifikat Hochschuldidaktik)
Principal subjects/ occupational skills covered	Teaching at institutions of higher education
Name and type of organisation providing education and training	University of Freiburg In cooperation with Competence centre higher education didactics, Tübingen
Dates	2000
Title of qualification awarded	Medical Informatics Certificate
Principal subjects/ occupational skills covered	- Biostatistics, Medical Informatics - Computer Science, Medicine - Health Economics
Name and type of organisation providing education and training	GMDS e.V. Bonner Str. 178 50968 Köln, Germany <a href="http://www.gmds.de/organisation/zertifikate/med_informatik.php">http://www.gmds.de/organisation/zertifikate/med_informatik.php</a>
Dates	1992 – 1994

Title of qualification awarded	Medical Informatics Qualification ("Zusatzbezeichnung")
Principal subjects/ occupational skills covered	- Biostatistics, Programming, Databases - Networks, Coding & Classification, - Artificial Intelligence, - Health Economics
Name and type of organisation providing education and training	ISP data, Tal 60, 80331 München, Germany GSF – MEDIS (today HelmholtzZentrum, D-Neuherberg)
Dates	1988 – 1990
Title of qualification awarded	Doctor in Theoretical Medicine
Principal subjects/ occupational skills covered	- Parasitology, Public Health, Tropical Diseases
Name and type of organisation providing education and training	Heidelberg University Institute for Public Health in cooperation with Gesellschaft für Technische Zusammenarbeit (GTZ) and Universidade Federal do Maranhão (São Luís, Brazil)
Dates	1984 – 1992
Title of qualification awarded	Preliminary Medical Certification (1990) Medical Certification (1992)
Principal subjects/ occupational skills covered	- Study of Human Medicine
Name and type of organisation providing education and training	Heidelberg University, Sixth Year: Exchange with Universidade Federal do Rio Grande do Sul (Porto Alegre, Brazil)
Dates	1969 – 1982
Title of qualification awarded	School leaving examination (Abitur)
Principal subjects/ occupational skills covered	- Primary and Secondary Education
Name and type of organisation providing education and training	Schools in Karlsruhe, Pforzheim and Ettlingen (Germany)

## Personal skills and competences

Mother tongue(s) German

Other language(s) English, French, Spanish, Portuguese, Italian

Self-assessment

		<i>Understanding</i>				<i>Speaking</i>				<i>Writing</i>	
<i>European level (*)</i>		Listening		Reading		Spoken interaction		Spoken production			
English		C1	Proficient	C2	Proficient	C1	Proficient	C2	Proficient	C2	Proficient
French		B2	Independent	C1	Proficient	B2	Independent	B2	Independent	B2	Independent
Spanish		B2	Independent	C1	Proficient	B2	Independent	B2	Independent	B2	Independent
Portuguese		C2	Proficient	C2	Proficient	C2	Proficient	C2	Proficient	C2	Proficient
Italian		A2	Basic	B1	Independent	A2	Basic	A2	Basic	A2	Basic

(\*) [Common European Framework of Reference for Languages](#)

Social skills and competences

- Multicultural skills, acquired through longer stays outside Germany and participation in international projects and international cultural activities
- education skills, acquired through long experience as teacher (inside and outside the academic context) and supervisor

Organisational skills and competences

- sense of organisation, acquired by making the arrangements for several international meetings (KR-MED 2004, SMCS 2006, KR-MED 2008, FOIS ICBO 2012)

Computer skills and competences

- Python, VBA, VB6, SQL, OWL, Protégé
- In-depth-knowledge of Biomedical Vocabularies and Classifications such as SNOMED CT, ICD, MeSH, UMLS



## **Current Memberships**

- German Society of Medical Informatics, Biometry and Epidemiology (GMDS)
- American Medical Informatics Association (AMIA)
- Brazilian Society of Health Informatics (SBIS)
- The International Association for Ontology and its Applications (IAOA)
- HL-7 User Group, Germany

## **Invited Talks (since 2007)**

- Medical Informatics Symposium, Toulouse (2017)
- Clinical text Mining Symposium, Berlin (2017)
- Artificial Intelligence in Europe (AIME), Vienna (2017)
- University of Bordeaux (2016)
- New York University at Buffalo, U.S (2016)
- CBmed Biomarker conference, Graz, Austria (2016)
- Hospital Italiano de Buenos Aires, Argentina (2015)
- Universidad del Cauca, Popayán, Colombia (2015)
- Drug safety and Medical Informatics workshop Vienna (2015)
- Roche Pharmaceuticals, Semantics@Roche Forum, Basel (2015)
- Virtual Physiological Human Workshop, Trondheim (2014)
- Brazilian Conference on Health Informatics, Santos, Brazil (2014)
- KR4HC 2013/ProHealth, Murcia, Spain (2013)
- Swedish Terminology Conference, Gothenburg (2013)
- WoMo: Workshop on Modular Ontologies at ESSLLI, Ljubljana, Slovenia (2011)
- Brazilian Conference on Health Informatics, Porto de Galinhas, Brazil (2010)
- Seminar on Biomedical Text Mining, Dagstuhl, Germany (2008)
- EHR conference, Regensburg, Germany (2008)
- Internal Seminar at Boehringer Ingelheim, Mainz, Germany (2008)
- Seminar on Biomedical Ontologies, Dagstuhl (2007)
- Pontifical Catholic University of Paraná, Curitiba (2007)
- Brazilian Congress of Parasitology, Recife, Brazil (2007)

## Honors, Nominations and Awards

- 2015 Best paper award (co-author) at the International Conference of Biomedical Ontologies (ICBO 2015), Lisbon, Portugal
- 2014 Runner-up best paper award (1st author) at the Conference on Formal Ontologies in Information System (FOIS 2014), Rio de Janeiro, Brazil
- 2013 Best paper award (co-author) at the International Conference of Biomedical Ontologies (ICBO 2013), Montréal, Canada
- 2013 Hans Åhlfeldt medal at Terminology Conference in Göteborg, Sweden
- 2012 Best paper award (co-author) at the International Conference of Biomedical Ontologies (ICBO 2012), Graz, Austria
- 2008: Best poster award at the Annual Symposium of the German Society of Medical Informatics, Biometry and Epidemiology
- 2007: World Conference of Medical Informatics: Best Paper Award
- 2005: Friedrich Wingert Foundation Award at the Annual Symposium of the German Society of Medical Informatics, Biometry and Epidemiology
- 2004: Shortlisted for nomination of C3 professorship, University of Münster, Germany
- 2003 Awarding of Johann Peter Süßmilch Medal (Highest Award of the German Society of Medical Informatics, Biometry and Epidemiology, biennial)
- 2003 Selection of a Paper for the Yearbook of Medical Informatics
- 2003 Nomination for Best Paper on Foundations at the AMIA Fall Symposium, Washington DC
- 2001 Nomination for Best Theoretical Paper at the AMIA Fall Symposium, Washington DC
- 1999 Best Poster Award at the Forth World Congress of the Internet in Medicine, Heidelberg

## Editorial Board appointments for scientific journals

- Since 2006 BMC MEDICAL INFORMATICS AND DECISION MAKING
- Since 2007 JOURNAL OF BIOMEDICAL SEMANTICS
- Since 2011 INTERDISCIPLINARY MEDICINE

**Reviewer for scientific journals**

- Applied Ontology
- Artificial Intelligence in Medicine
- Bioinformatics
- BMC Bioinformatics
- BMC Medical Informatics and Decision Making
- Bundesgesundheitsblatt
- Computational Biotechnology
- Ecological Informatics
- Information Sciences
- International Journal of Medical Informatics
- International Journal of Metadata, Semantics and Ontologies
- Journal of the American Medical Informatics Association
- Journal of Biomedical Informatics
- Journal of Biomedical Semantics
- Methods of Information in Medicine
- Nature Biotechnology
- PLOS ONE
- Science
- Yearbook for Medical Informatics

**Reviewer for funding organizations**

- ASIIN e. V. - Germany
- Biotechnology and Biological Sciences Research Council
- BMBF (Federal Ministry of Education and Research) – Germany
- Deutsche Forschungsgemeinschaft - Germany
- European Commission
- Jubiläumsfonds der Österreichischen Nationalbank (ÖNB) - Austria
- National Research Foundation - South Africa
- Swiss National Science Foundation
- Wellcome Fund

**Chair or organizer of scientific events**

2015	MEDINFO, São Paulo, Area Chair
2012	ICBO+FOIS, Graz: Local Organizer
2010	OBML, Mannheim: Co-Chair
2010	AMIA Annual Symposium, Washington DC: SPC member
2009	OBML, Leipzig: Co-Chair
2008	KR-MED, Phoenix: Co-Organizer
2008	Medical Informatics Europe 2008, Gothenburg: SPC member
2006	Semantic Mining Conference on SNOMED CT, Copenhagen: SPC
2006	Foundations of Clinical Terminologies and Classifications (FCTC 2006, Timișoara): Organizer
2005	Symposium on Semantic Mining in Biomedicine, Hinxton UK: Co-Organizer
2005	AMIA Annual Symposium, Washington DC: SPC member

**Other Commitments**

Since 2015	Project leader ("IICCAB") Biomarker Research Centre CBmed, Graz
2013 – 2015	Chair of IMIA (Intl. Medical Informatics Association Working Group LaMB (Language & Meaning in Biomedicine))
Since 2011	Member of the Joint Advisory Group WHO – SNOMED International
2008 - 2011	GMDS Working Group Formal Terminologies: Co-Chair
2007 - 2012	Member of the Content Committee of SNOMED Intl.
Since 2010	Member of the SNOMED Intl. / WHO Advisory Group.
Since 2007	AVERBIS GmbH, Freiburg. Member of Scientific Advisory Board
2005- 2009	GMDS Working Group Knowledge-based systems
2005- 2009	AMIA Working Group „Formal (Bio)Medical Knowledge Representation“ Founder and Co-Chair
1999 - 2003	DAA - School of Medical Documentation, Freiburg Member of Scientific Advisory Board
1998 - 2001	GMDS-Working Group Computer-based Training: Co-Chair