

Richard Wettel — Curriculum Vitae

1 Personal Information

Name	Richard Wettel
Nationality	Romanian
Birth Date	November 12th, 1974
Birth Place	Timișoara, Romania
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Languages	Romanian (native) English (fluent) German (advanced) Italian (advanced)

2 Education and Employment History

2.1 Education

2006 - 2010	Ph.D. in Informatics, University of Lugano, Switzerland. Title of the thesis: <i>Software Systems as Cities</i> .
2004 - 2005	Master in Computer Science at Politehnica University of Timișoara, Romania. Average graduation mark: 9.75 (out of 10). Master thesis mark: 10 (out of 10). Title of the dissertation: <i>Language-Independent Detection of Clones with Renamed Variables</i> .
1999 - 2004	Dipl. Engineer in Computer Science at Politehnica University of Timișoara, Romania. Average graduation mark: 9.50 (out of 10). Diploma thesis mark: 9.92 (out of 10). Title of the thesis: <i>Automated Detection Of Code Duplication Clusters</i> .
1989 - 1993	Highschool no. 3 (Telecommunications), Timișoara, Romania.

2.1.1 Projects Developed During Education

2006 - 2010	CodeCity. Software visualization tool based on a 3D city metaphor. Programmed in VisualWorks Smalltalk. CodeCity is available for download, with releases for every major platform (Windows, Mac, Linux). Homepage: http://codecity.inf.usi.ch
2003 - 2005	DuDe. Language-independent code duplication detector, based on a novel concept called duplication chain. Designed as a support tool for my diploma thesis, later enhanced (during my master's) to support approximate matching. Plug-in for the iPlasma platform. Programmed in Java, runs on every major platform. Also available for download as a standalone tool. Homepage: http://www.inf.usi.ch/phd/wettel/dude.html
2003	MK4. A coffee machine, whose firmware and graphical simulator were to be designed and implemented. Programmed in C++. Part of Software Engineering laboratory work, it was organized as a contest between 21 teams.
2002	Compiler for a programming language similar to Pascal. Implement the syntactic and semantic analysis and build the virtual code generator and the virtual machine. The work has been part of the Compilers laboratory. Programmed in C.

2.2 Research Experience

2006 - 2010	Member of the REVEAL Research Group, Faculty of Informatics, University of Lugano, Switzerland.
2003 - 2006	Member of the LOOSE Research Group, Politehnica University, Timișoara, Romania.
2004 - 2006	Junior Researcher at the eAustria Institute, Timișoara, Romania.

2.2.1 Research Projects

2008 - 2009	CollapSE COLLABorative sPaces for Software Evolution. Hasler Foundation.
2006 - 2007	Swiss Virtual Campus Part of the Fundamental Programming Modules Online Course. SNF (Swiss National Science Foundation).
2006 - 2007	EvoSpaces: Multi-dimensional Navigation Spaces for Software Evolution. Hassler Foundation.
2005	Quality Assessment of a large C++ Industrial Project . International project, collaboration between LOOSE Research Group (Politehnica University, Timișoara), USI Lugano and University of Berne).

2.3 Industry Work Experience

2005 - 2006	Software Engineer, Sava Technologies S.R.L, Timișoara, Romania.
2003 - 2005	Programmer, ETA Industrial Automation, Timișoara, Romania.

2.3.1 Industrial Projects

2005	Altersvorsorgeberatungssoftware. Product integration and maintenance of a Retirement Plan Consultancy System for a German company (outsourcing).
2003 - 2005	Web Fleet Tracker. Fleet tracking for the local public transportation company in Timișoara, Romania. Soft real-time system, GPS localization, client-server communication via GPRS, Siemens TC45 platform running J2ME programs, web application.
2004	Jabbot. An Instant Messaging Bot on a mobile Siemens TC45 platform (J2ME) using the Jabber protocol. The application appearing as an IM user can be controlled (via instant messages) to perform remote actions like relay switching or temperature sensors reading.
2003 - 2004	Hot Water Regulator. Major project for the local heat provider (Colterm Timișoara, Romania). Hard real-time application, Dallas TINI, LCDs, temperature and pressure sensors, relays.

3 Professional Profile

3.1 Research Areas of Interest

Software Visualization, Software Reengineering, Reverse-engineering, Software Evolution, Object-Oriented Design, Software Metrics, Structural Analysis.

3.2 Participation as Program Committee Member

2009 ICPC (IEEE Int. Conf. on Program Comprehension) poster session.

3.3 Official (Co-)Reviewing

2010	ICSE (ACM/IEEE International Conference on Software Engineering). SoftVis (International ACM Symposium on Software Visualization).
2009	ICSM (IEEE International Conference on Software Maintenance).
2008	SC (International Symposium on Software Composition) ASE (IEEE/ACM Int. Conference on Automated Software Engineering). ICSM (IEEE International Conference on Software Maintenance). WCRE (Working Conference on Reverse Engineering). SoftVis (International ACM Symposium on Software Visualization). ENASE (International Conference on Evaluation of Novel Approaches to Software Engineering).
2007	CSMR (European Conf. on Software Maintenance and Reengineering). ICPC (IEEE International Conference on Program Comprehension). ICSM (IEEE International Conf. on Software Maintenance), tool demo. ASE (IEEE/ACM Int. Conf. on Automated Software Engineering). WCRE (Working Conference on Reverse Engineering).
2006	ASE (IEEE/ACM Int. Conf. on Automated Software Engineering). Softvis (Int. ACM Symposium on Software Visualization).
2005	ICSM (IEEE Int. Conf. on Software Maintenance).

3.4 Project Supervising

I mentored the bachelor project of Andrea Biaggi, who developed Citylyzer, a Java port of CodeCity as an Eclipse plugin.

3.5 Teaching Assisting

2008	Software Design and Evolution, University of Lugano, Master's course.
2008	Programming Fundamentals I, University of Lugano.
2007	Programming Fundamentals I, University of Lugano.
2007	Programming Fundamentals II, University of Lugano.
2006	Programming Fundamentals II, University of Lugano.

3.6 Summer Schools Attended

2007	Summer School on Software Engineering (LASER'07), Elba, Italy.
2006	Summer School on Game Theory (GAME'06), Aarhus, Denmark.

3.7 Public Presentations

2010, Sep. 21	“Software Systems as Cities”, Ph.D. defense, Lugano, Switzerland.
2010, Jan. 28	“CodeCity: Visual Exploration of Large-Scale Evolving Software” (in italian), at the JUG (Java Users Group) Lugano meeting, in Lugano, Switzerland.
2010, Jan. 14	“CodeCity: Visual Exploration of Large-Scale Evolving Software” (in italian), at the XPUG (eXtreme Programming Users Group) Bologna meeting, in Bologna, Italy.
2009, Dec. 21	“CodeCity: Visual Exploration of Large-Scale Evolving Software” (in italian), in Bologna, Italy.
2009, May 18	“Visual Exploration of Large-Scale Evolving Software”, at ICSE 2009 doctoral symposium, in Vancouver, Canada.
2008, Oct. 23	“CodeCity: Visualizzazione immersiva del software” (in italian), at ATED-ICT Recognition 2008, in Lugano, Switzerland.
2008, Oct. 18	“Visual Exploration of Large-Scale System Evolution”, at WCRE 2008, in Antwerp, Belgium.
2008, Oct. 17	“Scripting 3D Visualizations with CodeCity”, at FAMOOSr 2008, in Antwerp, Belgium.
2008, Sep. 17	“Localizing Design Problems with Disharmony Maps”, at SoftVis 2008, in Herrsching am Ammersee, Germany.
2008, Aug. 29	“CodeCity”, at ESUG 2008, in Amsterdam, The Netherlands.
2008, Jul. 8	“CodeCity”, at WASDeTT 2008, in Paphos, Cyprus.
2008, May 14	“CodeCity: 3D Visualization of Large-Scale Software”, tool demo at ICSE 2008, in Leipzig, Germany.
2008, Jan. 30,	“CodeCity” tool demo, at Moose Dojo, in Bern, Switzerland.
2007, Aug. 30,	“CodeCity” tool demo, at ESUG 2007, in Lugano, Switzerland.
2007, Jun. 29	“Program Comprehension through Software Habitability”, at ICPC 2007, in Banff, Canada.
2007, Jun. 25	“Visualizing Software Systems as Cities”, at VISSOFT 2007, in Banff, Canada.
2007, Jun. 25	“Distributable Features View: Visualizing the Structural Characteristics of Distributed Software Systems” on behalf of Dan Cosma and Radu Marinescu, at VISSOFT 2007, in Banff, Canada.
2005, Sep. 24	“Archeology of Code Duplication: Recovering Duplication Chains from Small Duplication Fragments”, at SYNASC 2005, Timișoara, Romania.

3.8 Awards

- 1st prize at the Riconoscimento ated-ICT Ticino 2008 contest, for the “CodeCity: Immersive Software Visualization” project (out of 18 projects).
- “Best Software Architect” award on the LOOSE (Laboratory for Object Oriented Software Engineering) 2003 Contest.

3.9 Technical Skills

Programming:	Smalltalk (4+ years), Java (4 years), Scheme (1 year).
OSs:	Mac OS X, Unix/Linux, Windows.
IDEs:	VisualWorks, Eclipse, IntelliJ Idea, DrScheme.
Other tools:	XUnit, ant, Subversion, CVS.
Practices:	Design patterns, refactoring, agile development methodologies.

4 List of Publications

4.1 Conference and Symposium Papers

[1] Software Systems as Cities: A Controlled Experiment

Richard Wettel, Michele Lanza, and Romain Robbes

In Proceedings of ICSE 2011 (33rd International Conference on Software Engineering), pp. xx - xx (to appear), ACM Press, 2011. (acceptance rate: 14%)

[2] Visual Exploration of Large-Scale System Evolution

Richard Wettel, Michele Lanza

In Proceedings of WCRE 2008 (15th Working Conference on Reverse Engineering), pp. 219 - 228, IEEE Computer Society, 2008. (acceptance rate: 28%)

[3] Visually Localizing Design Problems with Disharmony Maps

Richard Wettel, Michele Lanza

In Proceedings of Softvis 2008 (4th International ACM Symposium on Software Visualization), pp. 155 - 164, ACM Press, 2008. (acceptance rate: 42%)

[4] A Teamwork-Based Approach to Programming Fundamentals with Scheme, Smalltalk & Java

Michele Lanza, Amy Murphy, Romain Robbes, Mircea Lungu, Paolo Bonzini, Marco D'Ambros, Richard Wettel

In Proceedings of ICSE 2008 (30th International Conference on Software Engineering, Education Track), pp. 787 - 790, ACM Press, 2008.

[5] Program Comprehension through Software Habitability

Richard Wettel, Michele Lanza

In Proceedings of ICPC 2007 (15th IEEE International Conference on Program Comprehension), pp. 231 - 240, IEEE Computer Society, 2007. (acceptance rate: 33%)

[6] Archeology of Code Duplication: Recovering Duplication Chains from Small Duplication Fragments

Richard Wettel, Radu Marinescu

In Proceedings of SYNASC 2005 (7th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing), pp. 63 - 70, IEEE Computer Society, 2005.

4.2 Workshop Papers

[7] A Global Repository for Software System Models

Mircea Lungu and Richard Wettel

In Proceedings of FAMOOSr 2010 (4th Workshop on FAMIX and Moose in Reengineering), 2010.

[8] Scripting 3D Visualizations with CODECITY

Richard Wettel

In Proceedings of FAMOOSr 2008 (2nd Workshop on FAMIX and Moose in Reengineering), 2008.

[9] CodeCity

Richard Wettel, Michele Lanza

In Proceedings of WASDeTT 2008 (1st International Workshop on Advanced Software Development Tools and Techniques), 2008.

[10] Visualizing Software Systems as Cities

Richard Wettel, Michele Lanza

In Proceedings of VISSOFT 2007 (4th IEEE International Workshop on Visualizing Software For Understanding and Analysis), pp. 92 - 99, IEEE Computer Society Press, 2007. (acceptance rate: 44%)

4.3 Book Chapters**[11] EvoSpaces - Multi-Dimensional Navigation Spaces for Software Evolution**

Sazzadul Alam, Sandro Boccuzzo, Richard Wettel, Philippe Dugerdil, Harald Gall, Michele Lanza

In "Human Machine Interaction", pp. 167 - 192, LNCS Series. Springer, 2009.

4.4 Tool Demos, Doctoral Symposia Papers, and Posters**[12] Visual Exploration of Large-Scale Evolving Software**

Richard Wettel

In companion Proceedings of ICSE 2009 (31st International Conference on Software Engineering), Doctoral Symposium, pp. 391 - 394, ACM Press, 2009.

[13] CodeCity: 3D Visualization of Large-Scale Software

Richard Wettel, Michele Lanza

In Proceedings of ICSE 2008 (30th International Conference on Software Engineering), Research Demonstration Track, pp. 921 - 922, ACM Press, 2008.

[14] iPlasma: An Integrated Platform for Quality Assessment of Object-Oriented Design

Cristina Marinescu, Radu Marinescu, Petru Mihancea, Daniel Ratiu, Richard Wettel

In Proceedings of ICSM 2005 (21st IEEE International Conference on Software Maintenance), pp. 77 - 80 (Industrial & Tool Proceedings), Tool Demonstration Track, IEEE Computer Society, 2005.

[15] Archeology of Code Duplication: Recovering Duplication Chains from Small Duplication Fragments

Richard Wettel, Radu Marinescu

In Proceedings of ICSM 2005 (21st IEEE International Conference on Software Maintenance), pp. 75 - 78 (Poster Proceedings), Poster Session, IEEE Computer Society, 2005.

4.5 Theses**[16] Software Systems as Cities**

Richard Wettel

Ph.D. Thesis, University of Lugano, Switzerland, 2010.

[17] Language-Independent Detection of Clones with Renamed Variables

Richard Wettel

Master's Thesis, Politehnica University of Timișoara, Romania, 2005.

[18] Automated Detection Of Code Duplication Clusters

Richard Wettel

Bachelor Thesis, Politehnica University of Timișoara, Romania, 2004.

5 References

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