

# Curriculum vitae **Richard Wettel**

## Personal Information

Nationality	Romanian
Birth Date	12.11.1974
Birth Place	Timișoara, Romania
Residence Permit	B, valid through 14.03.2016
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## Education

03/2006–09/2010 **Ph.D. in Informatics**  
University of Lugano, Switzerland  
Thesis: *Software Systems as Cities*

Projects:

**CodeCity** (03/2006–10/2010)

Freely available software visualization tool based on a 3D city metaphor and implemented as support tool for the PhD thesis. CodeCity was used in a controlled experiment involving 42 participants from industry and academia, to validate the approach against the state-of-the-practice. CodeCity has been featured in information visualization<sup>1</sup> and software engineering<sup>2</sup> books and continues to be used as support for courses in several universities.

Homepage: <http://wettel.github.io/codecity.html>

Technologies: *Smalltalk, OpenGL (Jun), Moose*

Awards:

**1st prize** at the **Riconoscimento ated-ICT Ticino** contest for the project *CodeCity: Immersive Software Visualization* (out of 18 industrial and academic projects).

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<sup>1</sup>Manuel Lima. *The Book of Trees: Visualizing Branches of Knowledge*. Princeton Architectural Press, 2014.

<sup>2</sup>Adam Tornhill. *Your Code as a Crime Scene: Use Forensic Techniques to Arrest Defects, Bottlenecks, and Bad Design in Your Programs*. Pragmatic Bookshelf, 2015.

- 09/2004–07/2005 **Master of Science in Computer Science**  
 “Politehnica” University of Timișoara, Romania  
 Average graduation mark: 9.75 (out of 10)  
 Thesis mark: 10 (out of 10)  
 Thesis: *Language-Independent Detection of Clones with Renamed Variables*
- 09/1999–07/2004 **Bachelor of Science in Computer Science**  
 “Politehnica” University of Timișoara, Romania  
 Average graduation mark: 9.50 (out of 10)  
 Thesis mark: 9.92 (out of 10)  
 Thesis: *Automated Detection Of Code Duplication Clusters*  
 Projects:  
**DuDe** (09/2003–07/2005)  
 Language-independent code duplication detector, based on the novel concept of duplication chain. Designed as support tool for the diploma thesis, later enhanced (Master’s project) to support approximate matching. Freely available as standalone tool or as plug-in for the iPlasma/inCode software analysis platforms.  
 Homepage: <http://wettel.github.io/dude.html>  
 Technologies: *Java*  
 Awards:  
**Best Software Architect** award in the **LOOSE** (Laboratory for Object-Oriented Software Engineering) student contest in 2003.

## Industry Work Experience

- 03/2013–today **Software Engineer**  
 CompuGroup Medical Schweiz  
 Niederwangen, Switzerland  
 Projects:  
**G3 integration** (06/2014–today)  
 Coordinated a distributed team of 7, working on the integration of a new HIS (Hospital Information System) framework. Directly involved in every step of the integration process, from a new release of the framework down to the deployment of the integrated product. Scrum, continuous delivery, humane assessment.  
 Technologies: *J2EE, JBoss, SWT, Adobe Flex, HTML5, JavaScript*
- Phoenix** (03/2013–06/2014)  
 Maintained and developed of a highly configurable legacy HIS. Participated in several successful performance improvement efforts.  
 Technologies: *J2EE, Eclipse RCP, JBoss, Delphi, Scripting, Drools, Oracle and MSSQL databases*
- Phoenix Administrator** (06/2013–09/2013)  
 Designed and developed a graphical configuration management system, aimed at supporting business consultants in configuring our HIS application (hundreds of settings).  
 Technologies: *Eclipse RCP, SWT, Processing*

**Tooling** (03/2013–today)

In the context of humane assessment, developed several tools to support our processes. *Phoenix Version Radar*, a version tracker which correlates code (svn), components (nexus), and releases. *Phoenix Properties Surveyor* provides a tool for managing localization resources. *Log Driller* is a structured log file presentation tool that supports performance analysis. *Architectural rules* encapsulate architectural decisions, against which the code base can be tested. Technologies: *Moose, Pharo*

10/2010–02/2013 **Senior Software Engineer**

*Lifeware*

Bioggio, Switzerland

Projects:

**Online life insurance software** (04/2011–02/2013)

Involved in the development and maintenance of a complete, fully integrated, web based solution for the management of life insurance products. eXtreme Programming, TDD, Continuous Delivery.

Technologies: *Smalltalk, GemStone database*

**Portfolio importer** (10/2010–04/2011)

Developed a tool for importing the entire portfolio, consisting in the complete history of over 120'000 contracts, of a major Swiss life insurance company, by reverse-engineering the database.

Technologies: *Smalltalk, GemStone database, Oracle database*

02/2005–03/2006 **Software Engineer**

*Sava Technologies*

Timișoara, Romania

Projects:

**Online retirement plan software** (02/2005–03/2006)

Product integration and maintenance of a retirement plan software.

Technologies: *J2EE, Eclipse, Tomcat, Ant*

12/2003–01/2005 **Analyst-Programmer**

*ETA Industrial Automation*

Timișoara, Romania

Projects:

**Web Fleet Tracker** (05/2004–01/2005)

Developed a fleet tracking system for the local public transportation company. Soft real-time system, GPS localization, client-server communication via GPRS, Siemens TC45 hardware.

Technologies: *J2ME, J2EE, Tomcat*

**Jabbot** (04/2004–05/2004)

Prototyped a server application to exercise the Siemens TC45 mobile platform. The server, installed on a TC45, accepted commands via instant messaging to perform relay switching and sensor readings.

Technologies: *J2ME, Jabber*

**Hot Water Regulator** (12/2003–03/2004)

Reverse-engineered, re-documented and refactored a legacy system for the local heating provider. Hard real-time application, Dallas TINI, LCDs, temperature and pressure sensors, relays.

Technologies: *Java, doxygen*

## Academic Work Experience

- 03/2006–09/2010 **Researcher**  
*REVEAL Research Group*  
Faculty of Informatics, University of Lugano, Switzerland.
- 09/2003–03/2006 **Researcher**  
*LOOSE Research Group*  
“Politehnica” University of Timișoara, Romania.  
Projects:  
**Assessment of a large C++ Project** (03/2005–07/2005)  
Contributed with code duplication analysis to the assessment of a large software system for a multi-national telecommunication company. The assessment project was a collaboration between three research groups, affiliated with the Universities of Lugano and Bern (Switzerland) and Timișoara (Romania).
- 11/2004–02/2006 **Junior Researcher**  
*eAustria Institute*  
Timișoara, Romania.

## Selected Scientific Publications

- [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. 551 - 560, ACM Press, 2011.
- [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.
- [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.
- [4] **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.
- [5] **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.

## Technical Skills

Programming	Java, Smalltalk, Scheme
OS:	Mac OS X, Unix/Linux, Windows.
IDEs	Eclipse, IntelliJ Idea, Pharo, VisualWorks, DrScheme
Tools:	Maven, ant, XUnit, TestNG, SVN, Jira, Confluence
Databases:	Oracle, MS SQL, GemStone
Practices	Agile Development, Continuous Delivery, Design Patterns, Refactoring, eXtreme Programming (XP), Test Driven Development (TDD), SCRUM, Humane Assessment.

## Languages

Romanian	native
English	fluent
German	advanced <b>Goethe-Zertifikat B1</b> , score of 294 / 300, session 07/2012
Italian	advanced

## References

### **Dr. Tudor Girba**

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### **Prof. Michele Lanza**

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### **Prof. Radu Marinescu**

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