

Mircea Filip LUNGU

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Education

- 2009 PhD degree from the Faculty of Informatics, University of Lugano, Switzerland.
▷ Advisor is Prof. Michele Lanza
▷ The PhD thesis proposes techniques and tools for the static and evolutionary analysis of software ecosystems
- 2004 Diploma Engineer degree from “Politehnica” University of Timișoara
▷ Average grade for the 5 years: 9.6 (out of 10)
▷ Diploma thesis focuses on software metrics and visualization

Employment

- 2010 - present **Software Composition Group, University of Bern**
▷ Researcher. Furthering the research on software ecosystem analysis. Collaborating with the PhD students on their various topics. Leading master’s and bachelor’s projects.
▷ Lecturer. Designing the lectures for the *Software Design and Evolution* course together with Oscar Nierstrasz. Preparing and grading exams.
- 2009 - 2010 **Faculty of Informatics, University of Lugano, Switzerland**
▷ Researcher. Conducting research in software engineering, more precisely, architecture recovery and ecosystem analysis. Leading master and bachelor projects.
▷ Lecturer. Teaching the *Software Atelier II: GUI Design* course. Preparing lectures, grading assignments, preparing projects and exams
- 2004 - 2009 **Faculty of Informatics, University of Lugano, Switzerland**
▷ PhD Student. Studying techniques and developing tools for architecture recovery and ecosystem analysis. Leading master’s and bachelor’s projects.
▷ Teaching Assistant. Assisting in the *Programming Fundamentals I* and co-teaching the *Software Atelier II* course. Preparing courses, grading assignments, preparing projects and exams.
- 2007, Jul-Dec **IBM T.J. Watson Research Center, Hawthorne, NY**
▷ Intern/Co-op in the Next Generation Distributed Systems Group. Extending the Stream-sight visualization tool with support for visualizing and editing semantic descriptions of the components of large distributed workflow applications.
- 2001 - 2003 **Computervoice Systems, Romania**
▷ Software Developer (part-time). Working on Dependabill, a CRM system for the telecommunications market in the United States
- 1999 - 2000 **Logos Highschool, Timișoara**
▷ Instructor. Teaching the introductory programming course with Pascal

Research And Consulting Experience

- Nov-Dec 2010 **Visiting Researcher at the University of Chile**
- Taking part in the research activities of the Pleiad research group
 - Lecturing at the Programming Language Summer School in Antofagasta
 - Studying, with Dr. Romain Robbes, ripple effects in software ecosystems
- 2008 **Consultant for a large telecommunications company**
- Member of a multi-disciplinary team developing the next social networking platform.
 - Member of the team that does rapid prototyping in Ruby.
- 2005 **Consultant for a multinational enterprise**
- Member of a team of specialists from across Europe analyzing a legacy software system.
 - Responsible with performing dependency analysis on the system.
- 2002 - 2004 **Member of the LOOSE Research Group**
- Studying the evolution and re-engineering of object-oriented software systems
 - Reengineering and extending ProDeOOS - a quality assurance tool developed at LRG

Community Service

- 2010 Lecturer at the PL 2010 - 3rd Summer School on Programming Languages - in Antofagasta, Chile
- 2005 - 2008 Organizer of the *PhD Talks* at the Faculty of Informatics from University of Lugano. The seminar series are the place where PhD students talk about various topics they are interested in and practice presentation skills.
- 2005 - present Reviewer for various conferences and workshops: VisSoft 2005, SoftVis 2006, CSMR 2006, MSR 2006, ICPS 2006, ASE 2006, CSMR 2007, VissSoft 2007, Eurovis 2009, WCRE 2009, CSMR 2010, ICSE 2010

Distinctions

- 2010 Best paper award with Lile Hattori for the “Replaying Past Changes in Multi-developer Projects” article at IWPSE-EVOL 2010
- 2007 *1st Place at the ESUG Innovation Awards*. Competing with The Small Project Observatory - an online application aimed at visualizing project portfolios. ESUG is the primary European Smalltalk Conference.
- 2006 *Best poster award* for the poster entitled *Cutting Edge Software Visualization* presented at the 3rd International ACM Symposium on Software Visualization, Brighton, 2006
- 2003 *Best software engineer* award in the contest organized by the LOOSE (The Lab on Software Engineering) at the Polytechnic University of Timisoara, Romania
- 2002 The 2nd prize with the faculty’s team at the “Hard & Soft” International Contest, Suceava, Romania. The contest was based on Image Processing and the project we developed was a security system
- 2001 The 3rd prize at the Mecrob programming contest, Timisoara, with the software simulation of a mechanical Robot
- 1999 The 3rd prize at the National Contest of Educational Software, Focsani

Selected Projects

- 2007 - ... **The Small Project Observatory** - Framework for software ecosystem visualization and analysis. The project won the First Place in the ESUG Innovation Award Competition in 2007 (ESUG - European Smalltalk Conference)
- 2006 **iRetrospect**. A pet project that I started in order to be able to visualise the way I spend my time on the computer. In the same time I wanted to experience development for OS X with Cocoa and ObjectiveC.
- 2005 - ... **Softwareonaut**. A tool for software visualization and exploration. The goal of the tool is understanding large software systems by exploring their hierarchical decompositions. The application is developed using VisualWorks Smalltalk
- 2004 MagnetView. A software visualization tool for visualizing software artefacts and metrics
- 2002 Mircompilatorul. A compiler for Pascal written in Java
- 2000 Double-Triple-R. A 3D mechanical simulation of a robot. 3rd place at the local robotics contest

Selected Publications

- 2011 **A Study of Ripple Effects in Software Ecosystems**. Romain Robbes and Mircea Lungu. In Proceedings of the 33rd International Conference on Software Engineering (ICSE 2011), p. xxxx, May 2011.
- 2010 **The Small Project Observatory: Visualizing Software Ecosystems**. Mircea Lungu, Michele Lanza, Tudor Girba, Romain Robbes In Journal of Science of Computer Programming (SCP), Vol. 75, No. 4, pp. 264 - 275. Elsevier, 2010.
- The Small Project Observatory - A Tool for Reverse Engineering Software Ecosystems**. Mircea Lungu, Michele Lanza In Proceedings of ICSE 2010 (32nd ACM/IEEE International Conference on Software Engineering), pp. 289 - 292, ACM Press, 2010.
- 2008 **Towards reverse engineering software ecosystems**. In proceedings of ICSM 2008 (24 IEEE Conference on Software Maintenance), pp. 428-431, IEEE Press, 2008. Doctoral Symposium.
- A Teamwork-Based Approach to Programming Fundamentals with Scheme, Smalltalk, and Java** Michele Lanza, Amy Murphy, Romain Robbes, Mircea Lungu, Paolo Bonzini, Marco D'Ambros, Richard Wetzel In Proceedings of ICSE 2008 (30th International Conference on Software Engineering, Education Track), pp. 787 - 790, ACM Press, 2008.
- 2007 **Reverse Engineering Super-Repositories**. Mircea Lungu, Michele Lanza, Tudor Girba, Reinout Heck In Proceedings of WCRE 2007 (14 Conference on Reverse Engineering), pp. 120 - 129, IEEE Computer Society, 2007.
- Exploring Inter-Module Relationships in Evolving Software Systems**, Mircea Lungu, Michele Lanza. In Proceedings of CSMR 2007 (11th European Conference on Software Maintenance and Reengineering), pp. 91- 100, IEEE Computer Society, 2007
- 2006 **Package Patterns for Visual Architecture Recovery**. Mircea Lungu, Michele Lanza, Tudor Girba. In Proceedings of CSMR 2006 (10th European Conference on Software Maintenance and Reengineering), pp. 183 - 192, IEEE Computer Society, 2006
- Mondrian: An Agile Information Visualization Framework**. Michael Meyer, Mircea Lungu and Tudor Girba. In Proceedings of the 3rd International ACM Symposium on Software Visualization, (SoftVis 2006), pp. 135-144.
- The Evolution Radar: Visualizing Integrated Logical Coupling Information**. Marco D'Ambros, Michele Lanza, Mircea Lungu. In Proceedings of MSR 2006 (3rd International Workshop on Mining Software Repositories), pp. 26-32, 2006.
- 2005 **Interactive Exploration of Semantic Clusters**. Mircea Lungu, Adrian Kuhn, Tudor Girba, Michele Lanza. In Proceedings of VISSOFT 2005 (3rd IEEE International Workshop on Visualizing Software For Understanding and Analysis), pp. 95 - 100, IEEE CS Press, 2005.

Books, Book Chapters and Theses

- 2009 **Reverse Engineering Software Ecosystems.** Mircea Lungu PhD Thesis, University of Lugano, Switzerland. October 2009.
- 2006 **Biomedical Information Visualization,** Mircea Lungu, Kai Xu. Chapter in *Human Centered Visualization Environments*. Springer LNCS (to appear).
- 2004 **Conformity Strategies: Measures of Software Design Rules .** Diploma thesis defended at the "Politehnica" University of Timisoara (Romania), Department of Computer Science

Programming Languages

- Lisp* I teach *Scheme* at undergraduate level and enjoy writing Lisp for small projects
- Smalltalk* For the last three years I have been working with *Smalltalk* and I came to appreciate the flexibility of the language and it's simplicity. At the university of lugano I taught smalltalk during the Programming Fundamentals course.
- Java* During the university years, I wrote a compiler for a simplified version of Pascal and a simple CRM application. During my 6 months of internship at IBM I developed an Eclipse plugin for visualizing large distributed systems specifications. I supervised a bachelor project implementing a software visualization plugin for the Eclipse IDE.
- Other* While working as a software developer at Computervoice Systems, I acquired in-depth knowledge of *Visual C++* and MFC. I have taught *Pascal* at highschool level. Over the years I worked with many other languages: as Assembly, Prolog, Objective C, Ruby.

Languages

Romanian is my native language. I speak fluently *English* and I have good knowledge of *Italian* and *French*. I am looking for a new language to learn.

References

Prof. Dr. Michele Lanza,

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Prof. Dr. Radu Marinescu,

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"Politehnica" University of Timișoara.

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