VALERIO PANZICA LA MANNA

vpanzica@mit.edu

SUMMARY

Valerio Panzica La Manna is a Roberto Rocca Post Doctoral Fellow at MIT Media Lab, USA.

In February 2014, he received the PhD with honors in Software Engineering at Politecnico di Milano under the supervision of Prof. Carlo Ghezzi. His PhD dissertation, awarded with the Dimitris N. Chorafas Foundation Award, focuses on dynamic software updates. Novel model-based approaches have been proposed to automatically identify under which condition a distributed software system can be safely and efficiently updated at run-time, without the need to be restarted.

In 2009, he received the Master Degree summa cum laude in Computer Science and Engineering at Politecnico di Milano, and in 2010, the Master Of Science in Computer Science at UIC, University of Illinois at Chicago.

In 2013, he was Research Intern at the IBM R&D Labs in Israel working on a new approach for the automatic generation of minimized test suites from scenario-based software specifications. Based on this collaboration he received the IBM PhD Fellowship Award.

His research interests cover different areas of software engineering including dynamic software evolution, self-adaptive systems, software testing, and smart spaces.

EXPERIENCE

MIT Media Lab   November 2014 – Present
Postdoctoral Fellow   *Object-Based Media Group, MIT Media Lab, USA*

· Research on infrastructure-less opportunistic mobile content sharing.

JOL, Joint Open Lab   February 2014 – October 2014
Postdoctoral Researcher   *Politecnico di Milano, Italy*

· Research on Proximity-based services in a smart space.

IBM   Summer 2013
Research Intern   *IBM R&D Labs, Israel*

· Proposed a new technique and implemented a tool for automatically generating a minimized test-suite for reactive systems from a scenario-based specification.

ReDeal.it   July 2011 – Present
Co-Founder   *Milan, Italy*

· ReDeal is a web-based second-hand marketplace for coupons.

PROJECTS

ShAir

· ShAir is a platform for mobile devices on which users can share their digital content with nearby people wirelessly in the background, even when they have no Internet access.
· http://shair.media.mit.edu/

ConUp

· ConUp is an extension of Apache Tuscany for safe dynamic reconfiguration of SCA (Service Component Architecture) distributed systems.
· https://code.google.com/p/conup/

ScenarioTools

· Scenariotools is an Eclipse-based toolsuite for scenario-based specifications. It supports the modeling, simulation and synthesis of Modal Sequence Diagram (MSD) Specifications. ScenarioTools also support the synthesis of dynamically updating controllers from changes in the specification.
· `http://www.scenariotools.org`

EDUCATION

Doctor of Philosophy (PhD) in Information Technology   January 2010 – February 2014
PhD with honors.
Research area: Software Engineering.   *Politecnico di Milano,Italy*

· Thesis Title: *Safe and Efficient Dynamic Updates of Distributed Software Systems*
· Supervisor: Prof. Carlo Ghezzi

Master of Science in Computer Science   2009 – 2010
UIC, University of Illinois, Chicago, USA.

· Thesis Title: *Service Selection for Open World Software Systems: Proxy Based Strategies*
· Supervisor: Prof. Ugo A. Buy

Laurea Magistrale (Master Degree) in Computer Science and Engineering 2007– 2009
Final grade: 110/110 summa cum laude   *Politecnico di Milano,Italy*

· Thesis Title: *Service Selection Strategies for Open World Software Systems*
· Supervisor: Prof. Carlo Ghezzi

Laurea (Bachelor Degree) in Computer Science and Engineering   2004 – 2007
Final grade: 110/110 summa cum laude   *Politecnico di Milano,Italy*

· Thesis Title (in Italian): *Parser di Interfacce Grafiche VEG*
· Supervisor: Prof. Pierluigi San Pietro

AWARDS

Chorafas Award   2014
The Dimitris N. Chorafas Foundation was established in March 1992 by Professor Dimitris N. Chorafas, an international scholar and author of more than 100 publications on economics, business, science and information technology, in collaboration with the Swiss Academy of Engineering Sciences, Swiss Academy of Humanities and Social Sciences, Swiss Academy of Medical Sciences and Swiss Academy of Natural Sciences. The Foundation awards annually some prizes which aim at encouraging extraordinary scientific achievements in computers and communications technology. The prize is awarded to the most qualified PhD students younger than 30 years selected from the 26 University partners from 15 different countries all over the world (UK, USA, France, Switzerland, Italy, Netherlands, Israel, Japan, Sweden, Greece, Germany, Hungary, Austria, Lithuania, Canada)..

· `http://goo.gl/2ny6b7`

IBM PhD Fellowship Award   2013
The IBM Ph.D. Fellowship Awards Program is an intensely competitive worldwide program, which honors exceptional Ph.D. students who have an interest in solving problems that are important to IBM and fundamental to innovation in many academic disciplines and areas of study.

· `https://www.ibm.com/developerworks/university/phdfellowship`

CompArch Young Investigator Award   2011
The CompArch Young Investigator Award is given to an outstanding paper accepted for WCOP and written by a PhD student.

· `http://wcop.ipd.kit.edu/wcop2011/`

Best Paper Award 2010

Best Paper Award in QOSA 2010, Sixth International Conference on the Quality of Software Architectures.

· `http://d3s.mff.cuni.cz/conferences/comparch2010/`

ICSE SCORE: Winner Project for "Formal Methods" 2009

Reference person of the project " A Simple Pacemaker Implementation", winner project in the category Formal Methods for SCORE 2009, International Student Contest on Software Engineering, during ICSE 2009, International Conference on Software Engineering.

· `http://score.elet.polimi.it/`

TECHNICAL STRENGTHS

Computer Languages	Java, Ruby, HTML, JavaScript, C
Frameworks	iOS, Android, Ruby on Rails, Eclipse Modeling Framework (EMF), SOAP, REST

TEACHING ACTIVITIES

Service Technologies *March 2011 – July 2014*
Role: Teaching Assistant
Instuctor: Sam Guinea
Topics: SOAP and REST web services, service composition and orchestration (SCA, BPEL), Cloud services.
Held at: Politecnico di Milano, Italy.

Software Engineering *March 2014 – July 2014*
Role: Teaching Assistant
Instuctor: Prof. Carlo Ghezzi
Topics: Java, Design Patterns, Testing, UML
Held at: Politecnico di Milano, Italy.

Mobile Development in Android *March 2014 – June 2014*
Role: Instructor
Topics: Android Programming
Held at: Collegio di Milano, Milan, Italy.

Informatics A for Physics Engineering *Oct. 2011 – Jan. 2014*
Role: Lab Teaching Assistant
Instuctor: Prof. Alfonso Fuggetta
Topics: C Programming Lab
Held at: Politecnico di Milano, Italy.

Mobile Development in iOS *Apr.2013*
Role: Instructor
Topics: iOS Programming
Held at: Cefriel S.p.A., Milan, Italy.

Mobile Development in iOS *Jul. 2012 – Sep. 2012*
Role: Instructor
Topics: iOS Programming
Held at: Corvallis S.p.A., Padova, Italy

Informatics B for Mechanical Engineering *Oct. 2010 – Jan. 2011*
Role: Lab Teaching Assistant
Instuctor: Prof. Elisabetta Di Nitto
Topics: C and Matlab Programming Lab
Held at: Politecnico di Milano, Italy.

Learning Week   *Mar. 2010*
Role: Teaching Assistant
Course Description: specialized course organized to prepare a selected group of high school students
to the national competition of the "International Olympiad in Informatics".

Informatics A for Mathematical Engineering   *Oct. 2009 – Jan. 2010*
Role: Lab Teaching Assistant
Instuctor: Alessandro Campi
Topics: C Programming Lab
Held at: Politecnico di Milano, Italy.

LANGUAGES

Italian	Mothertoungue
English	Fluent
Spanish	Fluent
French	Basic

Publications

[1] Carlo Ghezzi, Alfredo Motta, Valerio Panzica La Manna, and Giordano Tamburrelli. Qos driven dynamic binding in-the-many. In *Research into Practice–Reality and Gaps*, pages 68–83, 2010.

[2] Xiaoxing Ma, Luciano Baresi, Carlo Ghezzi, Valerio Panzica La Manna, and Jian Lu. Version-consistent dynamic reconfiguration of component-based distributed systems. *Proceedings of the 19th Symposium and the 13th European Conference on Foundations of Software Engineering, ESEC/FSE*, 11, 2010.

[3] Valerio Panzica La Manna. Dynamic software update for component-based distributed systems. In *Proceedings of the 16th international workshop on Component-oriented programming (WCOP 2011)*, pages 1–8. ACM, 2011.

[4] Carlo Ghezzi, Joel Greenyer, and Valerio Panzica La Manna. Synthesizing dynamically updating controllers from changes in scenario-based specifications. In *Proceedings of the 9th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2012)*, pages 145–154. IEEE, 2012.

[5] Valerio Panzica La Manna. Local dynamic update for component-based distributed systems. In *Proceedings of the 15th ACM SIGSOFT symposium on Component Based Software Engineering (CBSE 2012)*, pages 167–176. ACM, 2012.

[6] Joel Greenyer, Christian Brenner, and Valerio Panzica La Manna. The scenariotools play-out of modal sequence diagram specifications with environment assumptions. In *Proceedings of 12th International Workshop on Graph Transformation and Visual Modeling Techniques (GT-VMT 2013)*, volume 58, 2013.

[7] Valerio Panzica La Manna, Joel Greenyer, Carlo Ghezzi, and Christian Brenner. Formalizing correctness criteria of dynamic updates derived from specification changes. In *Proceedings of the 8th International Symposium on Software Engineering for Adaptive and Self-Managing Systems (SEAMS 2013)*, pages 63–72. IEEE Press, 2013.

[8] Luciano Baresi, Sam Guinea, and Valerio Panzica La Manna. Consistent runtime evolution of service-based business processes. In *Proceedings of the 11th Working IEEE/IFIP Conference on Software Architecture, WICSA 2014 (to appear)*, 2014.

[9] Carlo Ghezzi, Valerio Panzica La Manna, Alfredo Motta, and Giordano Tamburrelli. Performance-driven dynamic service selection. *Concurrency and Computation: Practice and Experience*, 2014.

[10] Valerio Panzica La Manna. *Safe and Efficient Dynamic Updates of Distributed Software Systems*. PhD thesis, Politecnico di Milano, Italy, 2014.