CURRICULUM VITÆ

Antonio Carzaniga

September 2014

http://www.inf.usi.ch/carzaniga/

Professional Interests

Content-Based Networking; Information-Centric Networking; Distributed Publish/Subscribe Systems; Distributed Systems Engineering; Software Adaptability; Automatic Fault Tolerance; Software Testing; Software Engineering; Computer Networks; Computer Security; Middleware

Education

Ph.D. January 1999	Computer Science Politecnico di Milano. Milano, Italy. Thesis: *Architectures for an Event Notification Service Scalable to Wide-area Networks*
Laurea (B.S., M.S.) July 1994	Electronics Engineering Politecnico di Milano. Milano, Italy.

Academic Employment

2014–present	*Professor*, Faculty of Informatics, University of Lugano, Switzerland
2010–2014	*Associate Professor*, Faculty of Informatics, University of Lugano, Switzerland
2004–2010	*Assistant Professor*, Faculty of Informatics, University of Lugano, Switzerland
2001–2007	*Assistant Research Professor*, Department of Computer Science, University of Colorado, Boulder, Colorado
1999–2001	*Research Associate*, Department of Computer Science, University of Colorado, Boulder, Colorado

Awards

- ICSE Most Influential Paper Award of ACM SIGSOFT and IEEE TCSE in 2007 for the ICSE'97 paper "Designing Distributed Applications with Mobile Code Paradigms."
- Best paper award of ICN 2013 for the paper "Is Information-Centric Multi-Tree Routing Feasible?"
- Nomination for the distinguished paper award of the Fourteenth ACM SIGSOFT Symposium on Foundations of Software Engineering in 2006 for the paper "Simulation-Based Test Adequacy Criteria for Distributed Systems."
- Nomination for the best paper award of the IEEE/ACM International Conference on Automated Software Engineering in 2005 for the paper "Automating Experimentation on Distributed Testbeds."

Professional Experience and Service

University Service

Director of PhD Studies. Faculty of Informatics, University of Lugano. 2011–2013.
Member of the Research Committee. University of Lugano. January 2013–present.

Teaching

Except where noted, 6-ECTS courses (or equivalent) consisting of about 60 hours of class time.

University of Lugano

Spring 2014	*Algorithms and Data Structures*
Fall 2013	*Computer Networking*
	Parallel and Distributed Computing (with Olaf Shenk and Walter Binder)
Spring 2013	*Algorithms and Data Structures*
Fall 2012	*Computer Networking*
	Introduction to PhD Studies (2 ECTS, PhD course)
Spring 2012	*Algorithms and Data Structures*
Fall 2011	*Algorithms and Data Structures*
	Fundamentals of Programming
Spring 2011	*Computer Networking*
Fall 2010	*Algorithms and Data Structures*
Spring 2010	*Computer Networking*
Fall 2009	*Algorithms and Data Structures*
Summer 2009	*EFI-CH-TI: Modulo "Ingegneria del software"* (4 ECTS, with Mauro Pezzè)
Spring 2009	*Computer Networking*
	EFI-CH-TI: Modulo "Fondamenti di programmazione" (4 ECTS, with M. Jazayeri)
Fall 2008	*Algorithms and Data Structures*
	Introduction to Programming in C (3 ECTS, delegated almost completely to a TA)
Spring 2008	*Computer Networking*
	Communication and System Security (3 ECTS)
Fall 2007	*Algorithms and Data Structures*
	Introduction to Programming in C (3 ECTS, delegated almost completely to a TA)
Spring 2007	*Computer Networking*
Fall 2006	*Algorithms and Data Structures*
	Introduction to Programming in C (3 ECTS)
Spring 2006	*Computer Networking*
	Content-Based Networking and Peer-To-Peer Systems (seminar course)

Fall 2005 *Algorithms and Data Structures* (with Fernando Pedone)
Programming in C (part of the Software Atèlier III course)

Spring 2005 *Computer Networking*

Fall 2004 *Computer Architectures* (with Amy Murphy)

University of Colorado

Fall 2002 *Foundations of Computer and Network Security* (with John R. Black)

Fall 2001 *Foundations of Computer and Network Security*

Supervised or Co-Supervised PhD Students, Graduated or Expected to Graduate

Andrea Mattavelli. University of Lugano. Summer 2015 (expected).
Michele Papalini. University of Lugano. Fall 2015 (expected).
Koorosh Khazaei. University of Lugano. Summer 2015 (expected).
Nicolò Perino. University of Lugano. Spring 2014.
Amirhossein Malekpour. University of Lugano. November 2012.
Alessandra Gorla. University of Lugano. July 2011.
Cyrus Hall. University of Lugano. May 2010.
Matthew J. Rutherford. University of Colorado. August 2006.
Yanyan Wang. University of Colorado. August 2006.

Community Service

Conference Organization and Editorial Boards

Member of the Editorial Board of *ACM Transactions on Software Engineering Methodologies (TOSEM)*. January 2013–present.

Member of the Steering Committee of the *ACM International Conference on Distributed Event-Based Systems (DEBS).* June 2004–present.

Artifacts Evaluation Co-Chair, *22nd ACM SIGSOFT International Symposium on the Foundations of Software Engineering.* 2014.

Program Co-Chair of the *International Workshop on Distributed Event-Based Systems (DEBS).* 2004.

Program Committees

FSE 2014. 22nd ACM SIGSOFT International Symposium on the Foundations of Software Engineering.

ICSE 2014 Doc. Doctoral Symposium, 36th International Conference on Software Engineering.

ICSE 2014 Demo. Demonstrations, 36th International Conference on Software Engineering.

ICN 2014. 1st ACM Conference on Information-Centric Networking.

Middleware 2013. ACM/IFIP/USENIX International Middleware Conference.

OPODIS 2013. International Conference: On Principles of Distributed Systems.

ISSTA 2013. International Symposium in Software Testing and Analysis.

ICSE 2013. 35th International Conference on Software Engineering.

NOMEN 2013. 2nd IEEE International Workshop on Emerging Design Choices in Name-Oriented Networking.

Middleware 2012. ACM/IFIP/USENIX 13th International Conference on Middleware.

FSE 2012 New Ideas. New Ideas track, 20th ACM SIGSOFT International Symposium on the Foundations of Software Engineering.

SSS 2012. 14th International Symposium on Stabilization, Safety, and Security of Distributed Systems.

DEBS 2012. 6th ACM International Conference on Distributed Event-based Systems.

ICSE 2012. 34th International Conference on Software Engineering.

ESEC/FSE 2011. Joint meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering.

DEBS 2011. 5th ACM International Conference on Distributed Event-Based Systems.

ICSE 2011. 33nd International Conference on Software Engineering.

DEBS 2010. 4th ACM International Conference on Distributed Event-Based Systems.

ICSE 2010. 32nd International Conference on Software Engineering.

ESEC/FSE 2009. 7th joint meeting of the European Software Engineering Conference (ESEC) and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (FSE).

DEBS 2009. 3rd ACM International Conference on Distributed Event-Based Systems.

DEBS 2008. 2nd International Conference on Distributed Event-Based Systems.

IPDPS 2008. 22nd IEEE International Parallel & Distributed Processing Symposium,.

ISSTA 2007. International Symposium on Software Testing and Analysis.

DEBS 2007. Inaugural International Conference on Distributed Event-Based Systems,.

WOSP 2007. 6th ACM Workshop on Software and Performance.

FSE 2006. Fourteenth ACM SIGSOFT Symposium on Foundations of Software Engineering.

EDA-PS 2006. First International Workshop on Event-driven Architecture, Processing and Systems.

ICSE 2006/RD. Committee of ICSE 2006 for Research Demonstrations.

SEM 2006. Software Engineering and Middleware Workshop.

IWDDS'06. International Workshop on Dynamic Distributed Systems.

SUTC 2006. IEEE International Conference on Sensor Networks, Ubiquitous, and Trustworthy Computing.

EVOSC05. Evolution of Open-Source Code Bases.

DEBS'05. International Workshop on Distributed Event-Based Systems, (PC member and co-organizer).

SEM 2004. Software Engineering and Middleware Workshop.

DEBS'04. International Workshop on Distributed Event-Based Systems, (Program Chair).

DEBS'03. International Workshop on Distributed Event-Based Systems.

DEBS'02. International Workshop on Distributed Event-Based Systems.

Refereeing for Journals

IEEE Transactions on Computer Systems; *IEEE Transactions on Computers*; *IEEE Transactions on Software Engineering*; *ACM Computing Surveys*; *ACM Transactions on Computer Systems*; *ACM Transactions on Autonomous Systems*; *IEEE Transactions on Dependable and Secure Computing*; *IEEE Transactions on Parallel and Distributed Systems*; *ACM Transactions on Programming Languages and Systems*; *ACM Transactions on Software Engineering Methodologies*; *IEEE Transactions on Knowledge and Data Engineering*; *Software: Practice and Experience*; *Journal of Automated Software Engineering*; *Software Process Improvement and Practice*; *International Journal on Artificial Intelligence Tools*.

Conferences (in addition to program committees)

ACM SIGCOMM; *Conference on Human Factors in Computing Systems (CHI)*.

Software Systems

Siena
1998–present

an event-notification system for wide-area networks. Siena is a distributed communication infrastructure offering a *publish/subscribe* service augmented with *advertisements* and *event patterns*. The focus of Siena is on the scalability as well as the expressiveness of this service. The core of Siena is a *content-based routing network*, a communication network in which the distribution of information is based on its contents rather than on one or more explicit addresses.

DVS
1998–2002

a distributed version control system. DVS implements a strict lock change control policy over structured sets of documents. It provides for check-out and check-in of files and directories, as well as higher level functions such as sync. DVS uses NUCM as its underlying configuration management platform.

NUCM
1997–2002

an infrastructure to build distributed configuration management systems. NUCM implements a peer-to-peer architecture of servers, each one managing versioned artifacts. Artifacts may be grouped in collections that are also versioned and stored in NUCM servers. NUCM is neutral with respect to versioning, location, and change control policies. Configuration management systems use the programming interface offered by NUCM to implement specific policies.