
Davide Balzarotti

Curriculum Vitae

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Personal Information

Name Davide Balzarotti
Date of Birth March 18, 1977
Place of Birth Milano, Italy
Citizenship Italian

Contact Information

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California, United States
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Current Position

August 2006 - present Postdoc Researcher in Computer Security
University of California - Santa Barbara

Education

- **Ph.D. degree in Computer Engineering**
Politecnico di Milano, Italy - May 2006
Dissertation Title: "*Testing Intrusion Detection Systems*"
Advisor: Prof. Carlo Ghezzi
- **Master degree in Information Technology**
CEFRIEL, Milano - July 2002
- **Laurea degree (equivalent to M.S.) in Computer Engineering**
Politecnico di Milano, Italy - July 2002
Thesis Title: "*Distributed Cooperation in Mobile Environments*"
Grade: 100/100 cum Laude

Publications

Journal Papers

- [A.1] D. Balzarotti, C. Ghezzi, M. Monga
“Supporting cooperative software processes in a decentralized and nomadic world”
IEEE Transactions on Systems, Man, and Cybernetics – Part A: Systems and Humans 36(6)
11/2006
- [A.2] D. Balzarotti, P. Costa, G.P. Picco
“The LightTS Tuple Space Framework and Its Customization for Context-Aware Applications”
Journal of Web Intelligence and Agent Systems, Volume 5, Number 2, 2007 - pages 215-231

Conference and Workshop Papers

- [B.1] C. Kruegel, D. Balzarotti, W. Robertson, G. Vigna “Improving Signature Testing Through Dynamic Data Flow Analysis” (*To appear*) *Annual Computer Security Applications Conference (ACSAC 23), December 10-14, 2007, Miami Beach, Florida, USA*
- [B.2] D. Balzarotti, M. Cova, V. Felmetzger, G. Vigna
“Multi-Module Vulnerability Analysis of Web-based Applications”
(*To appear*) *ACM Conference on Computer and Communication Security (ACM CCS) 2007*
- [B.3] M. Cova, D. Balzarotti, V. Felmetzger, G. Vigna
“Swaddler: An Approach for the Anomaly-based Detection of State Violations in Web Applications”
(*To appear*) *Recent Advance in Intrusion Detection (RAID) 2007*
- [B.4] M. Van Gundy, D. Balzarotti, G. Vigna
“Catch Me, If You Can: Evading Network Signatures with Web-based Polymorphic Worms ”
First USENIX Workshop on Offensive Technologies (WOOT) 2007
- [B.5] D. Balzarotti, M. Monga, S. Sicari
“Assessing the risk of using vulnerable components”
Quality of protection: security measurements and metrics, Advances in Information Security 23
Springer New York, 2006
- [B.6] G.P. Picco, D. Balzarotti, P. Costa
“LighTS: A Lightweight, Customizable Tuple Space Supporting Context-Aware Applications”
Proceedings of the 20th Annual ACM Symposium on Applied Computing (SAC 2005)
- [B.7] D. Balzarotti, A. Castaldo D’Ursi, L. Cavallaro, M. Monga
“Slicing AspectJ Woven Code”
Proceedings of Foundations Of Aspect-Oriented Languages (FOAL 2005)
- [B.8] G. Vigna, W. Robertson, and D. Balzarotti
“Testing Network-based Intrusion Detection Signatures Using Mutant Exploits”
Proceedings of the ACM Conference on Computer and Communication Security (ACM CCS 2004)
- [B.9] D. Balzarotti, M. Monga
“Using Program Slicing to Analyze Aspect Composition”
Proceedings of Foundations Of Aspect-Oriented Languages (FOAL 2004)

- [B.10] D. Balzarotti, C. Ghezzi, and M. Monga
“Support Configuration Management for Virtual Workgroups in a Peer-to-Peer Setting”
Proceedings of international conference on Software Engineering and Knowledge Engineering
(SEKE 2002)
- [B.11] D. Balzarotti, C. Ghezzi, and M. Monga
“Freeing Cooperation from Servers Tyranny”
Web engineering and peer-to-peer computing, LNCS 2376 Springer-Verlag

Teaching Activity

- Teaching assistant for the following courses:
“*Informatica A e B*”, Prof. Gianpaolo Cugola - Politecnico di Milano (2005-2006), *Informatica C*, Prof. Mattia Monga - Politecnico di Milano (2005-2006), *Informatica B*, Prof. Vincenzo Martena - Politecnico di Milano (2004-2005), *Informatica C*, Prof. Mattia Monga - Politecnico di Milano (2004-2005), *Ingegneria del Software*, Prof. Carlo Ghezzi - Politecnico di Milano (2002-2003), *Informatica C*, Prof. Mattia Monga - Politecnico di Milano (2002-2003), *Informatica 1*, Prof. Carlo Ghezzi - Politecnico di Milano (2002-2003)

Invited Talks

- *Multi-Module Vulnerability Analysis of Web-based Applications*
University of Milan, Italy, 19 December 2006

Professional Activities and Service

Society Memberships

Member, Institute of Electrical and Electronics Engineers (IEEE)

Conference Committee Activities

3rd International Workshop on Software Engineering for Secure Systems (SESS07)

Reviewing Activities

- Journals:
IEEE Security and Privacy, International Journal of Security and Networks, Springer-Verlag
Monograph on Testing and Analysis of Web Services (2007)
- Conferences:
Annual Computer Security Applications Conference (ACSAC '07), ACM SIGSOFT Symposium on the Foundations of Software Engineering (FSE '05), IEEE Symposium on Security and Privacy (2005), IEEE International Conference on Automated Software Engineering (ASE '03), ACM Conference on Computer and Communications Security (CCS '06),

Other Professional Activities

- Member of the red team in the top-to-bottom review of the electronic voting machines certified for use in California (June - July 2007)
- Member of the winner team at the DEFCON hacker capture the flag competition, Las Vegas, August 2005