

Daniel Ricardo dos Santos

CONTACT INFORMATION	E-mail: danielricardo.santos@gmail.com	Skype: danielricardo.santos
	Website: daniel-rs.github.io	Phone: +39 388 634 0742
	LinkedIn: linkedin.com/in/danielricardosantos	
EDUCATION	University of Trento (UNITN), Italy	
	PhD. in Computer Science	Expected graduation: 02/2017
	University of Santa Catarina (UFSC), Brazil	
	MSc. in Computer Science	10/2011 - 08/2013
	BSc. in Computer Science	03/2007 - 07/2011
WORK EXPERIENCE	Fondazione Bruno Kessler (FBK) - Trento, Italy	
	<i>Junior Researcher</i>	09/2016 - Current
	<ul style="list-style-type: none">Performed static and dynamic security analysis of Android applications, in collaboration with the PosteItaliane Cyber Security Innovation lab.	
	<i>Early Stage Researcher</i>	09/2013 - 08/2016
	<ul style="list-style-type: none">Designed and developed techniques and tools based on formal methods for security analysis and enforcement of workflow-driven applications and web applications.Part of the SECENTIS European Industrial Doctorate project.	
	SAP Labs (FBK collaboration) - Sophia Antipolis, France	
	<i>Early Stage Researcher</i>	09/2013 - 08/2016
	<ul style="list-style-type: none">Designed and developed a tool to test web application exploits in multiple environments, using Selenium and Docker.Integrated a research prototype for run-time workflow monitoring into the SAP HANA Operational Intelligence platform.	
	SecPlus - Florianópolis, Brazil	
	<i>Information Security Consultant</i>	10/2012 - 07/2013
	<ul style="list-style-type: none">Conducted penetration testing and security assessments for several companies.Contributed to open source projects for the analysis of Linux malware and for secure development in PHP.	
SKILLS	AltoQi - Florianópolis, Brazil	
	<i>C++ developer</i>	10/2011 - 04/2012
	<ul style="list-style-type: none">Implemented parts of the graphics and database modules of QiBuilder, a CAD software for civil engineering, using the Windows API and SQLite.Worked as part of a Scrum team using agile methodology.	
	Networks and Management Laboratory, UFSC - Florianópolis, Brazil	
	<i>Research Assistant</i>	07/2010 - 07/2013
	<ul style="list-style-type: none">Implemented identity management, access control, and security monitoring systems for cloud computing, using technologies such as SAML and OpenStack.	
	Programming languages: Python, Java, C/C++, PHP, JavaScript.	
	Technical expertise: Agile methodology (TDD, Scrum, XP), Linux/UNIX systems, databases (MySQL, HANA, SQLite), version control (SVN, Git), penetration testing (network, web, and mobile), formal methods (model checking, SMT).	
	Soft skills: Quick learner with good communication skills (verbal and written). Capable of working independently and in teams. Efficient project manager.	
	Languages: Portuguese (Native), English (Fluent), Italian (Intermediate).	

FURTHER EDUCATION	Summer/Winter Schools:	
	European Summer School in Logic, Language, and Information	2016
	SECENTIS Winter School - Security of Enterprise Information Systems	2016
	IEEE Italy Section School of Career Boosting	2015
	Marktoberdorf Summer School - Dependable Software Systems Engineering	2014
	UFSC Mathematics Summer School - Axiomatic Set Theory, Real Analysis	2011
	Online:	
	Machine Learning (Coursera - Andrew Ng, Stanford)	2015
AWARDS	Best Student Paper (DBSec Conference)	2015
OTHER INTERESTS	Martial arts: Wado-ryu Karate black belt (1st dan)	
	Volunteering: Boy Scout leader (2010-2013)	

List of publications

JOURNALS

- J1. **D.R. dos Santos**, R. Marinho, G.R. Schmitt, C.M. Westphall, C.B. Westphall. “*A Framework and Risk Assessment Approaches for Risk-based Access Control in the Cloud*” in Journal of Network and Computer Applications, vol. 74, October, 2016
- J2. C.B. Westphall et al. “*Operation, Management, Security and Sustainability for Cloud Computing*” in Revista de Sistemas de Informação da FSMA, vol. 2014, no. 13, 2014
- J3. E.A. Rigon, C.M. Westphall, **D.R. dos Santos**, C.B. Westphall. “*A Cyclical Evaluation Model of Information Security Maturity*” in Information Management and Computer Security, vol. 22, no. 3, 2014
- J4. **D.R. dos Santos**, T.J. Nascimento, C.M. Westphall, M.A.P. Leandro, C.B. Westphall. “*Privacy-preserving identity federations in the cloud: a proof of concept*” in International Journal of Security and Networks, vol. 9, no. 1, 2014
- J5. R.F. de Souza, C.B. Westphall, **D.R. dos Santos**, C.M. Westphall. “*A Review of PACS on Cloud for Archiving Secure Medical Images*” in International Journal of Privacy and Health Information Management, vol. 1, no. 1, 2013

CONFERENCES AND WORKSHOPS

- C1. **D.R. dos Santos**, S.E. Ponta, S. Ranise. “*Modular Synthesis of Enforcement Mechanisms for the Workflow Satisfiability Problem: Scalability and Reusability*” in Proceedings of the 21st ACM Symposium on Access Control Models and Technologies (SACMAT), 2016
- C2. L. Compagna, **D.R. dos Santos**, S.E. Ponta, S. Ranise. “*Cerberus: Automated Synthesis of Enforcement Mechanisms for Security-sensitive Business Processes*” in Proceedings of the 22nd International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS), 2016
- C3. **D.R. dos Santos**, S. Ranise, L. Compagna, S.E. Ponta. “*Assisting the Deployment of Security-Sensitive Workflows by Finding Execution Scenarios*” in Proceedings of the 29th Annual IFIP WG 11.3 Conference on Data and Applications Security and Privacy (DBSec), 2015
- C4. C. Bertolissi, **D.R. dos Santos**, S. Ranise. “*Automated Synthesis of Run-time Monitors to Enforce Authorization Policies in Business Processes*” in Proceedings of the 10th ACM Symposium on Information, Computer and Communications Security (ASIACCS), 2015
- C5. S. Dashevskyi, **D.R. dos Santos**, F. Massacci, A. Sabetta. “*TESTREX: a Testbed for Repeatable Exploits*” in Proceedings of the 7th Workshop on Cyber Security Experimentation and Test (CSET), 2014
- C6. P.A.F. Vitti, **D.R. dos Santos**, C.B. Westphall, C.M. Westphall, K.M.M. Vieira. “*Current Issues in Cloud Computing Security and Management*” in Proceedings of the 8th International Conference on Emerging Security Information, Systems and Technologies (SECURWARE), 2014
- C7. **D.R. dos Santos**, C.M. Westphall, C.B. Westphall. “*A dynamic risk-based access control architecture for cloud computing*” in Proceedings of the IEEE/IFIP Network Operations and Management Symposium (NOMS), 2014
- C8. P. Silva, C.B. Westphall, C.M. Westphall M. Mattos, **D.R. dos Santos**. “*An Architecture for Risk Analysis in Cloud*” in Proceedings of the 10th International Conference on Networking and Services (ICNS), 2014
- C9. **D.R. dos Santos**, C.M. Westphall, C.B. Westphall. “*Risk-based Dynamic Access Control for a Highly Scalable Cloud Federation*” in Proceedings of the 7th International Conference on Emerging Security Information, Systems and Technologies (SECURWARE), 2013

- C10. R.F. de Souza, C.B. Westphall, **D.R. dos Santos**, C.M. Westphall. *“Challenges of Operationalizing PACS on Cloud Over Wireless Networks”* in Proceedings of the 9th International Conference on Wireless and Mobile Communications (ICWMC), 2013
- C11. R.B. Brinhosa, C.M. Westphall, C.B. Westphall, **D.R. dos Santos**, F. Grezele. *“A Validation Model of Data Input for Web Services”* in Proceedings of the 12th International Conference on Networks (ICN), 2013
- C12. M.A.P. Leandro, T.J. Nascimento, **D.R. dos Santos**, C.M. Westphall, C.B. Westphall. *“Multi-Tenancy Authorization System with Federated Identity for Cloud-Based Environments Using Shibboleth”* in Proceedings of the 11th International Conference on Networks (ICN), 2012
- C13. **D.R. dos Santos**, C.M. Westphall, *“Uma aplicação de privacidade no gerenciamento de identidades em nuvem com uApprove”* in Anais do Simpósio Brasileiro em Segurança da Informação e de Sistemas Computacionais (SBSEG), 2011

THESES

- T1. **D.R. dos Santos**, *“Automatic Techniques for the Synthesis and Assisted Deployment of Security Policies in Workflow-based Applications”*, PhD. thesis, University of Trento, 2017
- T2. **D.R. dos Santos**, *“Uma Arquitetura de Controle de Acesso Dinâmico Baseado em Risco para Computação em Nuvem”*, MSc. thesis, Federal University of Santa Catarina, 2013
- T3. **D.R. dos Santos**, *“Gerenciamento de Identidades e Privacidade em Ambientes de Computação em Nuvem”*, BSc. thesis, Federal University of Santa Catarina, 2011

PATENTS

- P1. S.E. Ponta, L. Compagna, **D.R. dos Santos**, S. Ranise, *“Secure and Compliant Execution of Processes”*. Filed on 13/04/2016 (under USPTO review)
- P2. A. Sabetta, L. Compagna, S.E. Ponta, S. Dashevskyi, **D.R. dos Santos**, F. Massacci. *“Multi-context Exploit Test Management”*. United States Patent 20160314302

VULNERABILITIES

- V1. CVE-2013-2618, Network Weathermap 0.97a Cross Site Scripting
- V2. CVE-2013-2619, Aspen 0.8 Directory Traversal

Academic activities

SCIENTIFIC AND PROFESSIONAL ASSOCIATIONS	<ul style="list-style-type: none">• Association for Computing Machinery (ACM) 2015 - Current• IFIP Data and Applications Security and Privacy (WG11.3) 2015 - Current• Joint Conferences on Theory and Practice of Software (ETAPS) 2016 - Current• IEEE Communications Society (ComSoc) 2014 - 2015
RESEARCH PROJECTS	<ul style="list-style-type: none">• SECENTIS - Security and Trust of Next Generation Enterprise Information Systems 2013-2016• AutoMan&Sec4Cloud - Autonomic Management and Security for Cloud Computing 2013• GESCONGRECO - Gerência e Segurança para Computação em Nuvem, Grade e Redes Cognitivas 2010-2013
TEACHING ASSISTANCE	<ul style="list-style-type: none">• Applied Security - Offensive Technologies (MSc.) - UNITN, Italy 2014• Operating Systems (BSc.) - UFSC, Brazil 2013• Computer Networks (BSc.) - UFSC, Brazil 2013
REVIEWER FOR JOURNALS	<ul style="list-style-type: none">• Computer Networks• Journal of Networks and Systems Management• Security and Communication Networks
EXTERNAL REVIEWER FOR CONFERENCES	<ul style="list-style-type: none">• 11th International Workshop on Data Privacy Management (DPM 2016)• 11th International Workshop on Security and Trust Management (STM 2015)• 29th IFIP Conference on Data and Applications Security and Privacy (DBSec 2015)
MEMBER OF THESIS COMMITTEES	<ul style="list-style-type: none">• Gustavo Roecker Schmitt, “<i>Utilização do Modelo de Controle de Acesso RAdAC (Risk-Adaptive Access Control) em um Ambiente de Computação em Nuvem</i>”, BSc. thesis, Federal University of Santa Catarina, 2014.• Max Alexandre Zanelato, “<i>Proposta de um modelo de biblioteca cliente para o Shibboleth: Facilitando a adaptação das aplicações</i>”, BSc. thesis, Federal University of Santa Catarina, 2014.