Curriculum Vitae

updated April 2016

Personal information

Name	**Rojas Siles, José Miguel**
Telephone	(+44) 114 222 1975
Fax(es)	(+44) 114 222 1810
Emails	jrojas@sheffield.ac.uk, jmrs84@gmail.com
Nationality	Bolivian
Date of birth	13 January 1984

Education

Dates	10/2009 – 12/2013
Institution	Technical University of Madrid, Spain
Degree awarded	*Phd. in Software and Systems*
Thesis title	Test Case Generation in Object Oriented Programming
Dates	02/2008 – 09/2009
Institution	Autonomous University of Madrid, Spain
Study	*Postgraduate Study in Computer Engineering and Telecommunications*
Dates	04/2005 – 12/2005
Institution	Autonomous University of Santa Cruz, Bolivia
Qualification awarded	*Postgraduate Diploma in Higher Education*
Dates	02/2001 – 12/2005
Institution	Autonomous University of Santa Cruz, Bolivia
Degree awarded	*Computer Engineer*

Work experience

Dates	02/2014 –
Occupation or position held	Research Associate in Software Testing
Name and address of employer	Department of Computer Science - The University of Sheffield.
Dates	10/2009 – 12/2013
Occupation or position held	Predoctoral Research Grant, awarded by the Spanish Ministry of Science and Education under the National Program for Training Human Resources
Name and address of employer	Department of Computer Science - Technical University of Madrid
Dates	12/2007 – 08/2009
Occupation or position held	IT Trainee
Name and address of employer	IT Department - Autonomous University of Madrid, Spain
Dates	06/2006 – 09/2007
Occupation or position held	.NET Developer
Name and address of employer	ABJ Consulting, Santa Cruz, Bolivia
Dates	02/2006 – 12/2006
Occupation or position held	Mathematics Laboratory Assistant
Name and address of employer	Autonomous University of Santa Cruz, Bolivia

Dates	02/2004 – 12/2005
Occupation or position held	Teaching Assistant (Principles of Informatics, Compilers)
Name and address of employer	Autonomous University of Santa Cruz, Bolivia
Dates	02/2004 – 07/2004
Occupation or position held	Teaching Assistant (Computer Programming, Data Structures)
Name and address of employer	University of Aquino in Santa Cruz, Bolivia

Research Publications

2016

José Miguel Rojas, Gordon Fraser, and Andrea Arcuri.
Seeding strategies in search-based unit test generation.
STVR (Software Testing, Verification and Reliability), p. n/a–n/a, 2016.

José Miguel Rojas, Mattia Vivanti, Andrea Arcuri, and Gordon Fraser.
A detailed investigation of the effectiveness of whole test suite generation.
EMSE (Empirical Software Engineering), p. 1–42, 2016.

José Miguel Rojas and Gordon Fraser.
Code Defenders: A Mutation Testing Game.
In *MUTATION 2016 (The 11th International Workshop on Mutation Analysis)*. IEEE, 2016.
To appear.

2015

Sina Shamshiri, René Just, José M. Rojas, Gordon Fraser, Phil McMinn, and Andrea Arcuri.
Do Automatically Generated Unit Tests Find Real Faults? An Empirical Study of Effectiveness and Challenges.
In *ASE 2015*, p. 201–211. ACM, 2015.
ACM SIGSOFT Distinguished Paper Award.

Sina Shamshiri, José Miguel Rojas, Gordon Fraser, and Phil McMinn.
Random or Genetic Algorithm Search for Object-Oriented Test Suite Generation?
In *GECCO 2015*, p. 1367–1374. ACM, 2015.
Best Paper Award (SBSE-SS Track).

José Miguel Rojas, Gordon Fraser, and Andrea Arcuri.
Automated unit test generation during software development: a controlled experiment and think-aloud observations.
In *ISSTA 2015*, p. 338–349. ACM, 2015.

José Miguel Rojas, José Campos, Mattia Vivanti, Gordon Fraser, and Andrea Arcuri.
Combining Multiple Coverage Criteria in Search-Based Unit Test Generation.
In *SSBSE 2015*, vol. 9275 of *LNCS*, p. 93–108. Springer, 2015.
Best Paper Award (Industry-relevant SBSE results).

2014

Elvira Albert, Puri Arenas, Miguel Gómez-Zamalloa, and José Miguel Rojas.
Test Case Generation by Symbolic Execution: Basic Concepts, a CLP-Based Instance, and Actor-Based Concurrency.
In *SFM 2014, Advanced Lectures*, vol. 8483 of *LNCS*, p. 263–309. Springer, 2014.

2013

Elvira Albert, María García de la Banda, Miguel Gómez-Zamalloa, José Miguel Rojas, and Peter Stuckey.
A CLP Heap Solver for Test Case Generation.
TPLP (Theory and Practice of Logic Programming), ICLP 2013 SI., 13(4-5):721–735, 2013.

José Miguel Rojas and Corina S. Păsăreanu.
Compositional Symbolic Execution through Program Specialization.
In *BYTECODE 2013*, 2013.
Peer-reviewed workshop (co-located with ETAPS) with no formal proceedings.

2012

Elvira Albert, Diego Esteban Alonso-Blas, Puri Arenas, Jesús Correas, Antonio Flores-Montoya, Samir Genaim, Miguel Gómez-Zamalloa, Abu Naser Masud, German Puebla, José Miguel Rojas, Guillermo Román-Díez, and Damiano Zanardini.
Automatic Inference of Bounds on Resource Consumption.
In *FMCO 2012, Revised Lectures*, vol. 7866 of *LNCS*, p. 119–144. Springer, 2012.

José Miguel Rojas and Miguel Gómez-Zamalloa.
A Generic Framework for Guided Test Case Generation in CLP.
In *LOPSTR 2012*, vol. 7844 of *LNCS*, p. 176–193. Springer, 2012.

Elvira Albert, Bjarte M. Østvold, and José Miguel Rojas.
JMS2ABS: Automated Extraction of Abstract Behavioural Models from JMS Applications.
In *FMICS 2012*, vol. 7437 of *LNCS*, p. 16–31. Springer, 2012.

2011

Elvira Albert, Miguel Gómez-Zamalloa, and José Miguel Rojas.
Resource-driven CLP-based Test Case Generation.
In *LOPSTR 2011*, vol. 7225 of *LNCS*, p. 25–41. Springer, 2012.

Carmen Navarrete, Marina de la Cruz, Eloy Anguiano, Alfonso Ortega, and José Miguel Rojas.
Parallel Simulation of NEPs on Clusters.
In *WI-IAT 2011*, p. 171–174. IEEE Computer Society, 2011.

2010

Elvira Albert, Miguel Gómez-Zamalloa, José Miguel Rojas, and Germán Puebla.
Compositional CLP-Based Test Data Generation for Imperative Languages.
In *LOPSTR 2010*, vol. 6564 of *LNCS*, p. 99–116. Springer, 2011.

José Miguel Rojas, Marina de la Cruz Echeandía, and Alfonso Ortega de la Puente.
Towards the Automatic Programming of H Systems: jHsys, a Java H System Simulator.
In *Trends in PAAMS 2010*, vol. 71 of *AISC*, p. 387–394. Springer, 2010.

2009

Emilio del Rosal, José Miguel Rojas, Rafael Núñez, Carlos Castañeda, and Alfonso Ortega de la Puente.
On the Solutions of NP-Complete Problems by Means of jNEP Run on Computers.
In *ICAART 2009*, p. 605–612. INSTICC Press, 2009.

Internships

Institution	**NASA Ames Research Center**, Moffett Field, CA USA
Host Researcher(s)	Prof. Corina Păsăreanu
Dates	4 months, 09/2012 – 12/2012
Institution	**KTH Royal Institute of Technology**, Stockholm, Sweden
Host Researcher(s)	Prof. Mads Dam

Dates	3 months, 05/2011 – 07/2011

Research Projects

Project title	EXOGEN: *Explorative Test Oracle Generation*
Financing Organization	Engineering and Physical Sciences Research Council (EPSRC) (EP/K030353/1)
Participant Organizations	Google, Microsoft, University of Sheffield, Reino Unido
Duration	02/2014 – 08/2015
Main Researcher	Gordon Fraser
Project title	PROMETIDOS-CM: *Madrid Program in Rigorous Methods for the Development of Software*
Financing Organization	Madrid Regional Government (CAM S2009TIC-1465)
Participant Organizations	IMDEA Software, UPM, UCM
Duration	January 2010 – December 2013
Main Researcher	Francisco Bueno
Project title	DOVES: *Development Of Verifiable and Efficient Software*
Financing Organization	Spanish Ministry of Science and Innovation (TIN 2008-05624)
Participant Organizations	UPM
Duration	January 2009 – December 2013
Main Researcher	Manuel Hermenegildo
Project title	HATS: *Highly Adaptable and Trustworthy Software using Formal Models*
Financing Organization	CE ICT GA#231620
Participant Organizations	CTH (Sweden), UIO (Norway), KTH (Sweden), UPM (Spain), UKL (Germany), BOL (Italy), CWI (Holland), NRS (Norway), FRH (Germany), FRG (Holland), KUL (Belgium)
Duration	March 2009 – February 2013
Main Researcher	Germán Puebla

Other research activities

Summer School	10th TAROT International Summer School on Training And Research On Testing
Organizer	Facultade de Ingenharia, Universidade do Porto, Portugal
Location	Porto, Portugal
Dates	29/06–04/07/2014
Summer School	8th LASER Summer School on Soft. Eng.: Tools for Practical Software Verification
Organizer	ETH Chair of Software Engineering
Location	Elba Island, Italy
Dates	04–10/09/2011

Languages

Mother tongue(s)	**Spanish**

Other language(s)
Self-assessment
European level[*]

	Understanding			Speaking			Writing	
	Listening		Reading		Spoken interaction		Spoken production		Writing
English	C2	Proficient	C2	Proficient	C2	Proficient	C2	Proficient	C2	Proficient
German	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user

[*]*Common European Framework of Reference (CEF) level*