

# JOSÉ CAMPOS

## PERSONAL INFORMATION

*Born in Portugal, 29 January 1986*

*email*     [jose.campos@sheffield.ac.uk](mailto:jose.campos@sheffield.ac.uk)

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## WORK EXPERIENCE

- Sept 2016–Jan 2017*     Teaching Assistant  
*The University of Sheffield*  
Supporting master students on advanced software testing activities.  
Reference: Dr. Gordon FRASER · [gordon.fraser@sheffield.ac.uk](mailto:gordon.fraser@sheffield.ac.uk)
- Sept 2015–Jan 2016*     Teaching Assistant  
*The University of Sheffield*  
Supporting master students on advanced software testing activities.  
Reference: Dr. Gordon FRASER · [gordon.fraser@sheffield.ac.uk](mailto:gordon.fraser@sheffield.ac.uk)
- Sept 2014–Jan 2015*     Teaching Assistant  
*The University of Sheffield*  
Supporting master students on building complex software such as for use in aerospace applications.  
Reference: Dr. Kirill BOGDANOV · [k.bogdanov@sheffield.ac.uk](mailto:k.bogdanov@sheffield.ac.uk)
- Jun 2012–Nov 2013*     Research Assistant  
*University of Porto Faculty of Engineering*  
Investigate the use of various generic invariants in the value and time domain, their effect on Spectrum-based Fault Localization (SFL)'s diagnostic precision, their relation with existing test oracles, and their runtime overhead, in particular, the density required or strategic placement (trading off overhead vs precision).  
Reference: Dr. Rui ABREU · [rui@computer.org](mailto:rui@computer.org)
- Jul–Sept 2011*     Summer Trainee  
*Critical Software*  
Certification of critical aerospace software.  
Reference: Eng. Ricardo BARBOSA · [rbarbosa@criticalsoftware.com](mailto:rbarbosa@criticalsoftware.com)
- Jul–Sept 2010*     Summer Trainee  
*Caixa Mágica Software*  
Developed an internal project for Caixa Mágica operating system, with the main goal to improve the driver of the wireless card Realtek 8192 of Magalhães 2 computer.  
Reference: Dr. Paulo TREZENTOS · [paulo.trezentos@caixamagica.pt](mailto:paulo.trezentos@caixamagica.pt)
- Feb–Jul 2010*     Teaching Assistant  
*University of Porto Faculty of Engineering*  
Helping and guiding the students at Computer Laboratory of Master in Informatics and Computing Engineering.  
Reference: Dr. Rui ABREU · [rui@computer.org](mailto:rui@computer.org)

## EDUCATION

- Dec 2013–...*     The University of Sheffield, United Kingdom  
*PhD Student in Computer Science*  
Test Generation and Fault Localisation for Evolving Software.  
Supervisors: Dr. Gordon FRASER · [gordon.fraser@sheffield.ac.uk](mailto:gordon.fraser@sheffield.ac.uk) and Dr. Rui ABREU · [rui@computer.org](mailto:rui@computer.org)
- Set 2006–Fev 2012*     University of Porto, Portugal  
*Masters in Informatics and Computing Engineering*  
Informatics and Computing Engineering  
Supervisor: Dr. Rui ABREU · [rui@computer.org](mailto:rui@computer.org)

## PUBLICATIONS

- [1] José Campos, Yan Ge, Gordon Fraser, Marcelo Eler, and Andrea Arcuri.  
An Empirical Evaluation of Evolutionary Algorithms for Test Suite Generation.  
In *Search-Based Software Engineering*. 2017.
- [2] Spencer Pearson, José Campos, René Just, Gordon Fraser, Rui Abreu, Michael D. Ernst, Deric Pang, and Benjamin Keller.  
Evaluating and improving fault localization.  
In *Proceedings of the 39th ACM/IEEE International Conference on Software Engineering, ICSE '17*, 2017.
- [3] Sina Shamshiri, José Campos, Gordon Fraser, and Phil McMinn.  
Disposable Testing: Avoiding Maintenance of Generated Unit Tests by Throwing Them Away.  
In *Proceedings of the 39th ACM/IEEE International Conference on Software Engineering, ICSE '17*, 2017.
- [4] Gordon Fraser, José Miguel Rojas, José Campos, and Andrea Arcuri.  
EvoSuite at the SBST 2017 Tool Competition.  
In *Proceedings of the 10th International Workshop on Search-Based Software Testing, SBST '17*, 2017.
- [5] Andrea Arcuri, José Campos, and Gordon Fraser.  
Unit Test Generation During Software Development: EvoSuite Plugins for Maven, IntelliJ and Jenkins.  
In *Proceedings of the 2016 IEEE Ninth International Conference on Software Testing, Verification and Validation, ICST '16*, Washington, DC, USA, 2016. IEEE Computer Society.
- [6] Ermira Daka, José Campos, Gordon Fraser, Jonathan Dorn, and Westley Weimer.  
Modeling Readability to Improve Unit Tests  
ACM SIGSOFT Distinguished Paper Award.  
In *Proceedings of the 2015 10th Joint Meeting on Foundations of Software Engineering, ESEC/FSE 2015*, pages 107–118, New York, NY, USA, 2015. ACM.
- [7] José Miguel Rojas, José Campos, Mattia Vivanti, Gordon Fraser, and Andrea Arcuri.  
Combining Multiple Coverage Criteria in Search-Based Unit Test Generation  
Best Paper with industry-relevant SBSE results.  
In Márcio Barros and Yvan Labiche, editors, *Search-Based Software Engineering (SSBSE)*, volume 9275 of *Lecture Notes in Computer Science*, pages 93–108. Springer International Publishing, 2015.
- [8] José Campos, Gordon Fraser, Andrea Arcuri, and Rui Abreu.  
Continuous Test Generation on Guava.  
In Márcio Barros and Yvan Labiche, editors, *Search-Based Software Engineering*, volume 9275 of *Lecture Notes in Computer Science*, pages 228–234. Springer International Publishing, 2015.
- [9] Ermira Daka, José Campos, Jonathan Dorn, Gordon Fraser, and Westley Weimer.  
Generating Readable Unit Tests for Guava.  
In Márcio Barros and Yvan Labiche, editors, *Search-Based Software Engineering*, volume 9275 of *Lecture Notes in Computer Science*, pages 235–241. Springer International Publishing, 2015.
- [10] José Campos, Andrea Arcuri, Gordon Fraser, and Rui Abreu.  
Continuous Test Generation: Enhancing Continuous Integration with Automated Test Generation.  
In *Proceedings of the 29th ACM/IEEE International Conference on Automated Software Engineering, ASE '14*, pages 55–66, New York, NY, USA, 2014. ACM.
- [11] José Campos, Rui Abreu, Fraser Gordon, and Marcelo d'Amorim.  
Entropy-based Test Generation for Improved Fault Localization.  
In *Proceedings of the 28th IEEE/ACM International Conference on Automated Software Engineering, ASE 2013*, pages 257–267, New York, NY, USA, 2013. ACM.
- [12] Carlos Gouveia, José Campos, and Rui Abreu.  
Using HTML5 Visualizations in Software Fault Localization.  
In *Proceedings of the 1st IEEE Working Conference on Software Visualization (co-located with International Conference on Software Maintenance, ICSM), VISSOFT 2013*, pages 1–10, Washington, DC, USA, 2013. IEEE Computer Society.
- [13] Pedro Machado, José Campos, and Rui Abreu.  
MZoltar: Automatic Debugging of Android Applications.  
In *Proceedings of the 1st International Workshop on Software Development Lifecycle for Mobile (co-located with European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering, ESEC/FSE), DeMobile 2013*, pages 9–16, New York, NY, USA, 2013. ACM.
- [14] José Campos and Rui Abreu.  
Leveraging a Constraint Solver for Minimizing Test Suites.  
In *Proceedings of the The Symposium on Engineering Test Harness (co-located with QSIC), TSE-TH 2013*, pages 253–259, Washington, DC, USA, 2013. IEEE.

- [15] José Campos and Rui Abreu.  
Encoding Test Requirements as Constraints for Test Suite Minimization.  
In *Proceedings of the 10th International Conference on Information Technology: New Generations*, ITNG 2013, pages 317–322, Washington, DC, USA, 2013. IEEE Computer Society.
- [16] José Campos, André Ribeiro, Alexandre Perez, and Rui Abreu.  
GZoltar: An Eclipse Plug-in for Testing and Debugging.  
In *Proceedings of the 27th IEEE/ACM International Conference on Automated Software Engineering*, ASE 2012, pages 378–381, New York, NY, USA, 2012. ACM.
- [17] André Ribeiro, Rui Rodrigues, Rui Abreu, and José Campos.  
Integrating Interactive Visualizations of Automatic Debugging Techniques on an Integrated Development Environment.  
*IJCICG*, 3(2):42–59, 2012.

#### EVENTS

	<i>Sept 2015</i>	Student Volunteer
Conference		The 10th Joint Meeting of the European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering (ESEC/FSE)
	<i>May 2015</i>	Student Volunteer
Conference		The 37th International Conference on Software Engineering (ICSE)
	<i>Jun 2014</i>	Organising Committee
Conference		The 10th International Summer School on Training And Research On Testing (TAROT)
	<i>Nov 2013</i>	Student Volunteer
Conference		The 28th IEEE/ACM International Conference on Automated Software Engineering (ASE)
	<i>Apr 2013</i>	Session-Chair of Software Testing track
Conference		The 10th International Conference on Information Technology: New Generations (ITNG)

#### CO-SUPERVISOR

	<i>Sept 2014–Jul 2015</i>	A Multi-Objective Optimization Approach to Test Suite Reduction
Institution		University of Porto · Faculty of Engineering
Degree		Masters in Informatics and Computing Engineering
Student		Jorge Costa
Supervisor		Dr. Rui ABREU · <a href="mailto:rui@computer.org">rui@computer.org</a>
	<i>Sept 2013–Jul 2014</i>	Defining a Test Automation System for Mobile Apps
Institution		University of Porto · Faculty of Engineering
Degree		Masters in Informatics and Computing Engineering
Student		Renato Rodrigues
Supervisor		Dr. Rui ABREU · <a href="mailto:rui@computer.org">rui@computer.org</a>
	<i>Sept 2012–Jun 2013</i>	HTML5-based Visualizations to Support Software Fault Isolation
Institution		University of Porto · Faculty of Engineering
Degree		Masters in Informatics and Computing Engineering
Student		Carlos Gouveia
Supervisor		Dr. Rui ABREU · <a href="mailto:rui@computer.org">rui@computer.org</a>
	<i>Sept 2012–Jun 2013</i>	Generating Asserts for Test Cases Efficiently
Institution		University of Porto · Faculty of Engineering
Degree		Masters in Informatics and Computing Engineering
Student		Luís Pinho
Supervisor		Dr. Rui ABREU · <a href="mailto:rui@computer.org">rui@computer.org</a>
	<i>Sept 2012–Jun 2013</i>	Automatic Debugging of Android Applications

<i>Institution</i>	University of Porto · Faculty of Engineering
<i>Degree</i>	Masters in Informatics and Computing Engineering
<i>Student</i>	Pedro Machado
<i>Supervisor</i>	Dr. Rui ABREU · <a href="mailto:rui@computer.org">rui@computer.org</a>

#### PERSONAL SKILLS AND COMPETENCES

<i>Mother tongue(s)</i>	Portuguese
<i>Self-assessment</i>	English
<i>Social skills and competences</i>	<ul style="list-style-type: none"><li>- Ability to work independently or as part of a team</li><li>- Responsibility, confidence, conscience and sincerity</li><li>- Ability to take initiative when necessary</li><li>- Determination and willingness to learn</li></ul>
<i>Organizational skills and competences</i>	<ul style="list-style-type: none"><li>- Ability to organize time and tasks</li><li>- Sense of responsibility</li></ul>
<i>Technical skills and competences</i>	<ul style="list-style-type: none"><li>- Ability to develop applications for Unix</li><li>- Development of projects of software engineering: specification, design and implementation</li><li>- Creation of a documentation project on Software Engineering and user documentation</li><li>- Experience on object oriented programming (OOP)</li></ul>
<i>Driving licence(s)</i>	B