

# Bruno Lima

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## Work Experience

- January 2019 – Present    **Researcher Assistant**, *Institute for Systems and Computer Engineering of Porto*, Porto, Portugal.
- September 2019 – Present    **Assistant Lecturer**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Computer Architecture and Organization
- February 2019 – August 2019    **Assistant Lecturer**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Microprocessors and Personal Computers
- September 2018 – February 2019    **Assistant Lecturer**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Computer Architecture and Organization
- August 2015 – December 2018    **Researcher Assistant**, *Institute for Systems and Computer Engineering of Porto*, Porto, Portugal.  
Research in NANOSTIMA project
- February 2018 – August 2018    **Assistant Lecturer**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Microprocessors and Personal Computers
- September 2017 – February 2018    **Assistant Lecturer**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Computer Architecture and Organization
- February 2017 – August 2017    **Assistant Lecturer**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Microprocessors and Personal Computers
- September 2016 – February 2017    **Assistant Lecturer**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Computer Architecture and Organization
- February 2016 – August 2016    **Assistant Lecturer**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Microprocessors and Personal Computers

- September 2015 – February 2016 **Assistant Lecturer**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Computer Architecture and Organization
- March 2015 – July 2015 **Researcher Assistant**, *Faculty of Engineering of the University of Porto and Institute for Systems and Computer Engineering of Porto*, Porto, Portugal.  
Research in SIBILA project
- March 2014 – February 2015 **Researcher Assistant**, *Faculty of Engineering of the University of Porto and Institute for Systems and Computer Engineering of Porto*, Porto, Portugal.  
Research in AAL4ALL project - Definition of a testing and certification methodology for the AAL4ALL products and services.
- September 2013 – February 2015 **Researcher Assistant**, *Institute for Systems and Computer Engineering of Porto*, Porto, Portugal.  
Research in AAL4ALL project - Definition of a testing and certification methodology for the AAL4ALL products and services.
- July 2012 – September 2012 **Software Developer**, *NDrive*, Porto, Portugal.  
NDrive Internship as Software Development - Improved the NLife extension (is co-author) and worked in a new social website they will launch soon.
- June 2007 – July 2007 **Computer Technician**, *Área Soft, Lda*, Trofa, Portugal.  
Tasks of repairing computer equipment (hardware and software) and taught courses microsoft office. This internship was part of professional course in EPVC.

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## Education

- January 2015 – Present **Doctoral Program in Informatics Engineering**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.
- September 2008 – February 2014 **Integrated Masters in Informatics and Computing Engineering**, *Faculty of Engineering of the University of Porto*, Porto, Portugal.  
Grade average of 15 out of 20
- September 2004 – July 2007 **Professional Course Technical the Informatics/Management**, *Escola Profissional De Vila Do Conde (EPVC)*, Vila do Conde, Portugal.  
Grade average of 19 out of 20.

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## Awards

Faculty of Engineering of the University of Porto's Pedagogical Merit Award, January 2020

Best Paper Award at the The Eleventh International Conference on Advances in System Testing and Validation Lifecycle (VALID 2019), Valencia, Spain, 2019

“Prémio Escolar Municipal”, in 2008, awarded by mayor of Vila do Conde to the student with the best grade average in 2006/2007 from each of the schools in the municipality.

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## Publications

- 2020 - Published Bruno Lima, João Pascoal Faria and Robert Hierons, *Local Observability and Controllability Analysis and Enforcement in Distributed Testing With Time Constraints*, IEEE Access.
- 2020 - Accepted Bruno Lima and João Pascoal Faria, *DCO Analyzer: Local Controllability and Observability Analysis and Enforcement of Distributed Test Scenarios*, 42nd International Conference on Software Engineering (ICSE 2020).
- 2020 - Published João Pedro Dias, Bruno Lima, João Pascoal Faria, André Restivo and Hugo Sereno Ferreira, *Visual Self-healing Modelling for Reliable Internet-of-Things Systems*, International Conference on Computational Science (ICCS 2020).
- 2019 - Published Bruno Lima, João Pascoal Faria, and Robert Hierons, *Local Observability and Controllability Enforcement in Distributed Testing*, 12th International Conference on the Quality of Information and Communications Technology (QUATIC 2019).
- 2019 - Published Hugo Cunha, João Pascoal Faria, and Bruno Lima, *Low-Code Solution for IoT Testing*, The Eleventh International Conference on Advances in System Testing and Validation Lifecycle (VALID 2019).
- 2019 - Published Bruno Lima, *Automated Scenario-Based Integration Testing of Time-Constrained Distributed Systems*, 12th IEEE Conference on Software Testing, Validation and Verification (ICST 2019).
- 2018 - Published Bruno Lima, *Automated Scenario-Based Integration Testing of Distributed Systems*, 26th ACM Joint Meeting on European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2018).
- 2018 - Published Pedro Martins Pontes, Bruno Lima and João Pascoal Faria, *Test Patterns for IoT*, 9th ACM SIGSOFT International Workshop on Automating TEST Case Design, Selection, and Evaluation (A-TEST 2018).
- 2018 - Published Bruno Lima and João Pascoal Faria, *Towards Real-Time Patient Prioritization in Hospital Emergency Services*, IEEE 20th International Conference on e-Health Networking, Applications and Services (Healthcom 2018).
- 2018 - Published Pedro M. Pontes, Bruno Lima, and J. Pascoal Faria, *Izinto: A Pattern-Based IoT Testing Framework*, Workshop on Testing, Analysis, and Verification of Cyber-Physical Systems and Internet of Things (TAV-CPS/IoT 2018).
- 2018 - Published João Soares, Bruno Lima and João Pascoal Faria, *Automatic Model Transformation from UML Sequence Diagrams to Coloured Petri Nets*, 6th International Conference on Model-Driven Engineering and Software Development (MODELSWARD 2018).
- 2017 - Published Bruno Lima and João Pascoal Faria, *Conformance Checking in Integration Testing of Time-constrained Distributed Systems based on UML Sequence Diagrams*, 12th International Joint Conference on Software Technologies (ICSOT 2017).

- 2017 - Published Bruno Lima and João Pascoal Faria, *Towards Decentralized Conformance Checking in Model-Based Testing of Distributed Systems*, IEEE 10th International Conference on Software Testing, Verification and Validation Workshops (ICSTW 2017).
- 2017 - Published Bruno Lima and João Pascoal Faria, *A Survey on Testing Distributed and Heterogeneous Systems: The State of the Practice*, , Software Technologies, CCIS.
- 2016 - Published Bruno Lima and João Pascoal Faria, *Towards the Online Testing of Distributed and Heterogeneous Systems with Extended Petri Nets*, 10th International Conference on the Quality of Information and Communications Technology (QUATIC 2016).
- 2016 - Published Tiago Coelho, Bruno Lima and João Pascoal Faria, *MT4A: A no-programming test automation framework for Android applications*, 7th International Workshop on Automating Test Case Design, Selection, and Evaluation (A-TEST 2016).
- 2016 - Published Bruno Lima and João Pascoal Faria, *Testing Distributed and Heterogeneous Systems: State of the Practice*, 11th International Conference on Software Engineering and Applications (ICSOFTE 2016).
- 2016 - Published Bruno Lima and João Pascoal Faria, *A Model-Based Approach for Product Testing and Certification in Digital Ecosystems*, IEEE 9th International Conference on Software Testing, Verification and Validation Workshops (ICSTW 2016).
- 2016 - Published Bruno Lima, *Automated Scenario-based Testing of Distributed and Heterogeneous Systems*, IEEE International Conference on Software Testing, Verification and Validation (ICST 2016).
- 2016 - Published Bruno Lima and João Pascoal Faria, *Automated Testing of Distributed and Heterogeneous Systems Based on UML Sequence Diagrams*, Software Technologies, CCIS 586, pp. 1–17.
- 2015 - Published Bruno Lima and João Pascoal Faria, *An Approach for Automated Scenario-based Testing of Distributed and Heterogeneous Systems*, 10th International Conference on Software Engineering and Applications (ICSOFTE 2015).
- 2014 - Published João Pascoal Faria, Bruno Lima, Tiago Boldt Sousa and Angelo Martins, *A Testing and Certification Methodology for an Open Ambient-Assisted Living Ecosystem*, International Journal on E-health and Medical Communications (IJEHMC).
- 2013 - Published João Pascoal Faria, Bruno Lima, Tiago Boldt Sousa and Angelo Martins, *A testing and certification methodology for an Ambient-Assisted Living ecosystem*, IEEE International Conference on e-Health Networking, Application & Services (IEEE Healthcom 2013).

## Events

- Conference 12th Symposium on Search-Based Software Engineering (SSBSE 2020) [Publication Chair]
- Conference IEEE 13th International Conference on Software Testing, Verification and Validation 2019 (ICST 2020) [Local Organization Chair]
- Conference The Sixth International Conference on Advances and Trends in Software Engineering (SOFTENG 2020) [PC Member]
- Conference The Fifth International Conference on Fundamentals and Advances in Software Systems Integration (FASSI 2019) [PC Member]

Conference	The Eleventh International Conference on Advances in System Testing and Validation Lifecycle (VALID 2019) [PC Member]
Conference	11th Symposium on Search-Based Software Engineering (SSBSE 2019) [Publication Chair]
Conference	19th IEEE International Conference on Software Quality, Security, and Reliability (QRS 2019) [Social Media Chair]
Conference	The Fifth International Conference on Advances and Trends in Software Engineering (SOFTENG 2019) [PC Member]
Conference	The 46th ACM SIGPLAN Symposium on Principles of Programming Languages (POPL 2019) [Student Volunteer]
Conference	The second annual Facebook TAV Symposium (Facebook TAV 2018)
Conference	The 26th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE 2018) [Author / Student Volunteer]
Conference	The Tenth International Conference on Advances in System Testing and Validation Lifecycle (VALID 2018) [PC Member]
Conference	The Fourth International Conference on Fundamentals and Advances in Software Systems Integration (FASSI 2018) [PC Member]
Conference	18th IEEE International Conference on Software Quality, Security, and Reliability (QRS 2018) [Local Organizing Co-Chair]
Conference	40th International Conference on Software Engineering (ICSE 2018) [Student Volunteer]
Conference	First International Workshop on Verification and Validation of Internet of Things (VVIoT 2018) [PC Member / Webmaster]
Conference	6th International Conference on Model-Driven Engineering and Software Development (MODELSWARD 2018) [Author]
Conference	Web Summit 2017 (Web Summit 2017) [Student Volunteer - Team Leader]
Conference	5th User Conference on Advanced Automated Testing (UCAAT 2017)
Conference	CPS Summer School (CPS SS 2017)
Conference	13th International Summer School on Training And Research On Testing (TAROT 2017)
Conference	12th International Joint conference on Software Technologies (ICSOFT 2017) [Author]
Conference	IEEE 10th International Conference on Software Testing, Verification and Validation 2017 (ICST 2017) [Student Volunteer / Session Chair / Author]
Conference	TESTING Portugal 2016
Conference	ACM SIGSOFT International Symposium on the Foundations of Software Engineering (FSE 2016) [Author]
Conference	4th User Conference on Advanced Automated Testing (UCAAT 2016)
Conference	10th International Conference on the Quality of Information and Communications Technology 2016 (QUATIC 2016) [Author]
Conference	11th International Joint conference on Software Technologies (ICSOFT 2016) [Author]
Summer school	12th International Summer School on Training And Research On Testing (TAROT 2016)

Conference	IEEE 9th International Conference on Software Testing, Verification and Validation 2016 (ICST 2016) [Author]
Doctoral Symposium	11th Doctoral Symposium in Informatics Engineering (DSIE'16)[Co-Chair]
Conference	TESTING Portugal 2015
Conference	3rd User Conference on Advanced Automated Testing (UCAAT 2015)
Conference	10th International Joint conference on Software Technologies (ICSOT 2015) [Author]
Summer school	10th International Summer School on Training And Research On Testing (TAROT 2014)
Conference	IEEE International Conference on e-Health Networking, Application & Services (IEEE Healthcom 2013) [Author]
Student Conference	Talk a Bit 2013 [Co-founder / Organizing Chair]

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## Co-supervisor

September 2018 - July 2019	Hugo Cunha (MSc) – Low-Code Solution for IoT Testing
September 2017 - July 2018	Pedro Pontes (MSc) – A Pattern-based Testing Framework for IoT Ecosystems
September 2016 - July 2017	João Soares (MSc) – Automatic Model Transformation from UML Sequence Diagrams to Coloured Petri Nets
September 2016 - July 2017	José Cardoso (MSc) – Automatic Assessment of Programming Assignments for E-learning
September 2015 - July 2016	Tiago Coelho (MSc) – Automation of mobile application testing without programming

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## Languages

Portuguese	Proficient User - C2 (Native Language)
English	Proficient User - C1
Spanish	Independent User - B1
Italian	Basic User - A1

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## Computer skills

Programming Languages	Pascal, Visual Basic, C#, C, C++, Java, Prolog, Python, Scheme, JavaScript
Markup Languages	XML, XHTML, LaTeX, CSS
Database Management Systems	MySQL, PostgreSQL
Revision Control Systems	CVS, Subversion, Git

Frameworks and Technologies    Android, Windows Phone, OpenGL, Java Swing

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## Driving licence(s)

A1

A2

A

B1

B

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## Pedagogical formations

The New Role of the Educator: Best Practices in Online Education

Motivation in higher education - what drives the wheel: Module I - Motivation in students

Workshop on the U.Porto Peer Mentoring Program

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## Additional Information

Internship "OTL Pense Industria"

Course of first aid and ambulance crew

Defensive driving course

Volunteer in the paddock of the Boavista Circuit 2011

Volunteer in the media center of the Boavista Circuit 2013

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## Interests

Watch sports    Football and Formula 1

Playing sports    MTB, Running and Geocaching

Travel    Around the world