Juan Manuel Copia

PhD Student

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Employment History

Since 2021	**Research Assistant** *IMDEA Software Institute*, Madrid, Spain.
2019 - 2020	**Research Scholarship** *Department of Computer Science, University of Río Cuarto*, Argentina.
Summer 2019	**Summer Internship** *McAfee*, Argentina.
2018 - 2019	**Student Teaching Assistant** *Department of Computer Science, University of Río Cuarto*, Argentina.

Education

Since 2021	**Ph.D. in Computer Science** *Universidad Politécnica de Madrid*, Madrid, Spain.
2015 - 2020	**Undergraduate degree in Computer Science** (5-year + thesis) *Department of Computer Science, University of Río Cuarto*, Argentina. GPA: 9.02.
2015 - 2018	**Undergraduate degree in Computer Science** (3-year + final project) *Department of Computer Science, University of Río Cuarto*, Argentina. GPA: 8.81.

Publications

October 2023	**Precise Lazy Initialization for Programs with Complex Heap Inputs** J. M. Copia, F. Molina, N. Aguirre, M. Frias, A. Gorla, P. Ponzio. *IEEE International Symposium on Software Reliability Engineering, ISSRE 2023, Florence, Italy.*
October 2022	**LISSA: Lazy Initialization with Specialized Solver Aid** J. M. Copia, P. Ponzio, N. Aguirre, A. Gorla, M. Frias. *IEEE/ACM International Conference on Automated Software Engineering, ASE 2022, Oakland Center, Michigan, USA.*
May 2022	**Use of Test Doubles in Android Testing: An In-Depth Investigation** M. Fazzini, C. Choi, J. M. Copia, G. Lee, Y. Kakehi, A. Gorla, A. Orso. *ACM/IEEE International Conference on Software Engineering, ICSE 2022, Pittsburgh, USA.*

Open-source Software Artifacts

LISSA and PLI	Symbolic execution techniques for programs with complex heap.
SymSolve.	A solver for structural constraints of heap-allocated objects.
PySEAT.	A symbolic execution engine for python programs.

Others

Research Topics: My main research interests are related to program analysis and software testing. I like to apply software engineering techniques to solve complex problems and to develop such solutions.
Talks: Presented at ISSRE 2023, ASE 2022, IMDEA Software S3 Seminar Series and FACAS 2022.
Spoken Languages: English, Spanish and French.
Cultural Experiences: 5 month academic exchange in Chile, 4 month cultural inmersion in France.