

# Juan Manuel COPIA

*PhD Student*

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PERSONAL WEBSITE <https://juanmacopia.github.io>

## EMPLOYMENT HISTORY

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- 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

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- 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

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- 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

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- [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

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**Research Topics:** My main research interests are related to software testing and program analysis. I like to apply software engineering techniques to solve complex problems and to develop such solutions.

**Talks:** Presented at [IMDEA SOFTWARE S3 SEMINAR SERIES](#), [FACAS 2022](#) and [ASE 2022](#)

**Spoken Languages:** English, Spanish and French.

**Cultural Experiences:** 5 month academic exchange in Chile, 4 month cultural immersion in France.