# Juan Manuel Copia

*PhD Student*

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## Employment History

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

## Education

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| Since 2021 | **Ph.D. in Computer Science**<br>*Universidad Politécnica de Madrid*, Madrid, Spain. |
| 2015 - 2020 | **Undergraduate degree in Computer Science** (5-year + thesis)<br>*Department of Computer Science, University of Río Cuarto*, Argentina. GPA: 9.02. |
| 2015 - 2018 | **Undergraduate degree in Computer Science** (3-year + final project)<br>*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**<br>J. M. Copia, F. Molina, N. Aguirre, M. Frias, A. Gorla, P. Ponzio.<br>*IEEE International Symposium on Software Reliability Engineering, ISSRE 2023, Florence, Italy.* **(Recently accepted paper)** |
| October 2022 | **LISSA: Lazy Initialization with Specialized Solver Aid**<br>J. M. Copia, P. Ponzio, N. Aguirre, A. Gorla, M. Frias.<br>*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**<br>M. Fazzini, C. Choi, J. M. Copia, G. Lee, Y. Kakehi, A. Gorla, A. Orso.<br>*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

**Research Topics:** My main research interests are related to software testing and program analysis. Particularly, my latest research is focused on symbolic execution.
**Proficient in Java and Python**
**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 inmersion in France.