

# Juan Manuel COPIA

*PhD Student*

EMAILS: [jmcopia96@gmail.com](mailto:jmcopia96@gmail.com), [juanmanuel.copia@imdea.org](mailto:juanmanuel.copia@imdea.org)

TELEPHONE: +34 689806216

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

## EMPLOYMENT HISTORY

---

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

## EDUCATION

---

- |             |  |
|-------------|--|
| SINCE 2021  | <b>Ph.D. in Computer Science</b><br><i>Universidad Politécnica de Madrid, Madrid, Spain.</i>   |
| 2015 - 2020 | <b>Undergraduate degree in Computer Science</b> (5-year + thesis)<br><i>Department of Computer Science, University of Río Cuarto, Argentina. GPA: 9.02.</i>        |
| 2015 - 2018 | <b>Undergraduate degree in Computer Science</b> (3-year + final project)<br><i>Department of Computer Science, University of Río Cuarto, Argentina. GPA: 8.81.</i> |

## PUBLICATIONS

---

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

## OPEN-SOURCE SOFTWARE ARTIFACTS

---

- |                               |  |
|-------------------------------|--|
| <a href="#">LISSA AND PLI</a> | Symbolic execution techniques for programs with complex heap.  |
| <a href="#">SYM SOLVE.</a>    | A solver for structural constraints of heap-allocated objects. |
| <a href="#">PYSEAT.</a>       | 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.

**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.