

# Agustín Nolasco

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🌐 Personal Website

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## About Me

- 📌 I'm a Computer Science graduate student at the National University of Río Cuarto (UNRC), Argentina. My research interests include software testing, formal methods, and automated verification. I have experience in academic research projects and a strong foundation in programming and software development. Currently, I am looking for opportunities to apply my skills and knowledge in real-world scenarios, particularly in the areas of software quality assurance and verification. Anyway, I can really adapt to different environments and challenges, so feel free to reach out if you think I could be a good fit for your team or project.

## Employment History

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|------------------------|--|
| Ago. 2024 – Present    | 📌 <b>Teaching Assistant</b> , National University of Río Cuarto, Argentina<br>Courses: Compilers – Design of Algorithms – Algorithms and Data Structures |
| Apr. 2024 – Aug. 2024  | 📌 <b>Student Teaching Assistant</b> , National University of Río Cuarto, Argentina<br>Course: Advanced Programming                                       |
| Mar. 2024 – Aug. 2024  | 📌 <b>QA Tester</b> , Oliver Informatics<br>Río Cuarto, Córdoba, Argentina  |
| Apr. 2023 – Jan. 2024  | 📌 <b>Grader</b> , Guangdong Technion – Israel Institute of Technology, China<br>Course: Introduction to Computer Science                                 |
| Apr. 2023 – Jul. 2023  | 📌 <b>Grader</b> , Guangdong Technion – Israel Institute of Technology, China<br>Course: Introduction to System Programming                               |
| Apr. 2022 – Sept. 2022 | 📌 <b>Student Teaching Assistant</b> , National University of Río Cuarto, Argentina<br>Course: Design and Analysis of Algorithms                          |

## Education

- |              |   |
|--------------|---|
| 2024–Present | 📌 <b>PhD. in Computer Science</b> in National University of Córdoba, FAMAF. Córdoba.<br>Ongoing.  |
| 2019–2024    | 📌 <b>Computer Science Licentiate</b> in National University of Río Cuarto. Córdoba.<br>Final Average Score: 9.88 out of 10.<br>Thesis title: <i>Inference of Equivalences of Method Sequences for Metamorphic Testing</i> . |
| 2019–2021    | 📌 <b>Computing Analyst</b> in National University of Río Cuarto. Córdoba.<br>Final Average Score: 9.81 out of 10.   |
| 2012–2018    | 📌 <b>Electromechanical Equipments and Installations Technician</b> in Technical School No.15 Ing. Agustín Mercau. Villa Mercedes, San Luis.<br>Final Average Score: 8.65 out of 10.   |

## Research Publications



### Journal Articles

- 1 A. Nolasco, F. Molina, R. Degiovanni, *et al.*, “Abstraction-aware inference of metamorphic relations,” *Proc. ACM Softw. Eng.*, vol. 1, no. FSE, Jul. 2024. 📄 DOI: 10.1145/3643747.





## Preprints

- 1 R. Degiovanni, F. Molina, A. Nolasco, N. Aguirre, and M. Papadakis, *Specification inference for evolving systems*, Pre-print, 2023. arXiv: 2301.12403 [cs.SE].


## Research Projects

- Dec. 2021 – Present  **Optimizations to Symbolic Execution and Applications**  
**PICT 2019**  
Director: Dr. Nazareno Aguirre  
Position: Collaborator  
Funded by: National Agency for the Promotion of Research, Technological Development, and Innovation, through FONCyT.
- Jan. 2020 – Present  **Application of Constraint Solving Techniques to Software Validation and Verification**  
**PPI 2020-2022**  
Director: Dr. Nazareno Aguirre  
Position: Collaborator  
Funded by: Secretariat of Science and Technology, National University of Río Cuarto.







## Skills

- Languages  English: Lower Intermediate (strong reading/listening skills; basic conversational ability).
- Coding  Java, C, C++, Python, bash, SQL,  $\text{\LaTeX}$ , ...
- Databases  MySQL, PostgreSQL, SQLite.
- Misc.  Academic research, teaching, Programming, UNIX,  $\text{\LaTeX}$  typesetting and publishing.

## Courses




- Mar. 2025  **Advances in Automatic Software Testing**  
dictated by Dr. Mike Papadakis, Río 2025 Summer School  
Final Score: 9 out of 10
-  **Introduction to Input Grammar Fuzzing**  
dictated by Dr. Andreas Zeller, Río 2025 Summer School  
Final Score: 10 out of 10
-  **Analysis of mobile apps for quality and trustworthiness**  
dictated by Dr. Alessandra Gorla, Río 2025 Summer School  
Final Score: 10 out of 10
- Feb. 2024  **Dynamic Modal Logics**  
dictated by Dr. Raul Fervari and Dr. Carlos Areces, Río 2024 Summer School  
Final Score: 6 out of 10
-  **Verification of Fault Trees**  
dictated by Dr. Joost-Pieter Katoen, Río 2024 Summer School
- Aug. 2023  **Advanced Data Structures**  
dictated by Dr. Conrado Martínez, ECI 2023  
Final Score: 10 out of 10
-  **Fuzzing for Compiler Testing**  
dictated by Dr. Guillermo Polito, ECI 2023  
Final Score: 9 out of 10

## Courses (continued)



- Feb. 2023     **Modeling and Analyzing Concurrent Systems**  
dictated by Dr. Thomas Noll, Río 2023 Summer School  
Final Score: 8 out of 10
-  **Formal Approaches to Decision-Making under Uncertainty**  
dictated by Dr. Arnd Hartmanns, Río 2023 Summer School
- Aug. 2022     **Introduction to APIs**  
dictated by Dr. Guido De Caso, ECI 2022  
Final Score: 8 out of 10
-  **Satellite Images Processing**  
dictated by Dr. Rafael Grimson, ECI 2022  
Final Score: 7 out of 10
- Oct. 2019     **Software Testing**  
dictated by Dr. Nazareno Aguirre, CACIC 2019  
Final Score: 10 out of 10
- 2011–2016     **English Academy**  
Superior Institute of English Language, Villa Mercedes, San Luis

## Miscellaneous Experience

### Awards and Achievements

- 2023 – 2024     **First Major National Flag Escort**, National University of Río Cuarto.
- 2017 – 2018     **National Flag Bearer**, Technical School No.15 Ing. Agustín Mercau.
- 2017             **Max Average Score of the Class**, Technical School No.15 Ing. Agustín Mercau.  
Average Score 9.66 out of 10

### Scholarships

- Ago. 2024 – Present     **PhD. Scholarship**. National Scientific and Technical Research Council (CONICET).
- Sept. 2022 – Aug. 2023     **EVC-CIN Scholarship 2021**. Stimulation Scholarship for Scientific Vocations.

## References

### Dr. Nazareno Aguirre

Full Professor – Independent Researcher  
National University of Río Cuarto, Córdoba, Argentina  
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### Dr. Facundo Molina

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