

Facundo MOLINA

PERSONAL INFORMATION

PLACE AND DATE OF BIRTH: Carnerillo - Córdoba - Argentina — 1994 August 12
NATIONALITY: Argentinian
ADDRESS: Río Cuarto - Córdoba - Argentina
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LINKEDIN: <https://www.linkedin.com/in/facundo-molina/>
GITHUB: <https://github.com/facumolina>

EDUCATION

2017 - **Ph.D. in Computer Science**
PRESENT Software Engineering - Formal Methods - Machine Learning
The main research direction is the application of machine learning techniques to program analysis tasks.
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina

2012 - 2017 **M.S. in Computer Science**
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina
THESIS PROJECT: Automatic Learning of Relational Specifications using Evolutionary Computation
AVERAGE SCORE: 9,43

2012 - 2014 **B.S. in Computer Science**
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina
THESIS PROJECT: Project in the course of Distributed and Outsourced Software Engineering
AVERAGE SCORE: 9,33

PUBLICATIONS

MAY 2019 **Training Binary Classifiers as Data Structure Invariants**
Facundo Molina, Pablo Ponzio, Renzo Degiovanni, Germán Regis, Nazareno Aguirre and Marcelo Frias
To appear in Proceedings of the 41th International Conference on Software Engineering, ICSE 2019, Montreal, Canada, May 25-31, 2019.

SEPTEMBER 2018 **A Genetic Algorithm for Goal-Conflict Identification**
Renzo Degiovanni, Facundo Molina, Germán Regis and Nazareno Aguirre
Proceedings of the 33rd ACM/IEEE International Conference on Automated Software Engineering, ASE 2018, Montpellier, France, September 3-7, 2018.

MAY 2018 **From Operational to Declarative Specifications using a Genetic Algorithm** - Facundo Molina, Renzo Degiovanni, Germán Regis, Pablo Castro, Nazareno Aguirre and Marcelo Frias
Proceedings of the 11th International Workshop on Search-Based Software Testing,

SBST@ICSE 2018, Gothenburg, Sweden, May 28-29, 2018.
SBST 2018 Best paper award.

NOVEMBER 2016 **An Evolutionary Approach to Translate Operational Specifications into Declarative Specifications** - Facundo Molina, César Cornejo, Renzo Degiovanni, Germán Regis, Pablo Castro, Nazareno Aguirre and Marcelo Frias
Proceedings of the 19th Brazilian Symposium on Formal Methods
SBMF 2016, Natal, Brazil, November 22-25, 2016.
SBMF 2016 Best paper award.

TEACHING BACKGROUND

MARCH 2019 **Teaching Assistant**

- PRESENT COURSE: Introduction to Programming
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina

AUGUST 2018 **Teaching Assistant**

- DECEMBER 2018 COURSE: Distributed and Outsourced Software Engineering
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina

MARCH 2018 **Teaching Assistant**

- JUNE 2018 COURSE: Computability and Complexity
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina

MARCH 2017 **Student Teaching Assistant**

- JUNE 2017 COURSE: Algorithm Design Techniques
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina

AUGUST 2016 - **Student Teaching Assistant**

NOVEMBER 2016 COURSE: Programming Paradigms
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina

MARCH 2016 **Student Teaching Assistant**

- JUNE 2016 COURSE: System Design and Analysis
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina

AUGUST 2015 - **Student Teaching Assistant**

NOVEMBER 2015 COURSE: Programming Paradigms
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina

MARCH 2015 **Student Teaching Assistant**

- JUNE 2015 COURSE: Algorithm Design Techniques
Department of Computer Science - FCEFQyN
University of Río Cuarto - Argentina

AUGUST 2014 - **Student Teaching Assistant**

NOVEMBER 2014 COURSE: Data Structures and Algorithms

COURSES

- SEPTEMBER 2018 **Neural Networks** - Dr. Francisco Tamarit
PRESENT *Mathematical foundations of artificial neural networks*
Postgraduate courses
University of Córdoba - Argentina
- AUGUST 2017 **Text Mining** - Dr. Laura Alonso Alemany
NOVEMBER 2017 *Text Mining techniques applied to Natural Language Processing problems (Word similarity, Document clustering, Sense discrimination, Machine translation)*
Postgraduate courses
University of Córdoba - Argentina
- FEBRUARY 2017 **Human Dynamics: Data, Networks and Modelling** - Dr. Márton Karsai
Summer School of Computer Science RIO 2017
University of Río Cuarto - Argentina
- MARCH 2016 **Software Testing** - Dr. Renzo Degiovanni
JUNE 2016 *Main software testing techniques using state-of-the-art tools*
Postgraduate courses
University of Río Cuarto - Argentina
- FEBRUARY 2016 **Systematic Test Case Generation** - Prof. Sarfraz Khurshid
Summer School of Computer Science RIO 2016
University of Río Cuarto - Argentina
- FEBRUARY 2016 **Symbolic Program Analysis** - Prof. Willem Visser
Summer School of Computer Science RIO 2016
University of Río Cuarto - Argentina
- FEBRUARY 2015 **Description Logic Reasoning** - Dr. Anni-Yasmin Turhan
Summer School of Computer Science RIO 2015
University of Río Cuarto - Argentina
- FEBRUARY 2015 **Fundamentals of Quantum Programming Languages** - Dr. Alejandro Díaz-Caro
Summer School of Computer Science RIO 2015
University of Río Cuarto - Argentina

EXPERIENCE

- APRIL 2015 **Software Engineer**
- MARCH 2019 SMF Consulting S.L
Semi remote position providing software solutions based on the Openbravo ERP platform using technologies such as Java, PostgreSQL, Oracle, Hibernate, JavaScript, Mercurial, Git.
<http://smfconsulting.es>
Spain

TECHNICAL SKILLS

MOST EXPERIENCED LANGUAGES	Java, Python, JavaScript, C, C++
OTHER KNOWN LANGUAGES	Shell, Haskell, Lisp, Eiffel
USED FRAMEWORKS	Sklearn, Spring, NodeJS, AngularJS
USED IDES	Eclipse, VisualStudio
DATABASES	PostgreSQL, MySQL, Oracle, MongoDB
VERSION CONTROL SYSTEMS	Git, Mercurial, Subversion
PROJECT MANAGEMENT SOFTWARE	Maven, Ant

LANGUAGES

SPANISH: Mother language
ENGLISH: Fluid