Resume

Matías J. Micheletto

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1 Personal data

Full name: Micheletto, Matías Javier
Nacionality: Argentine
Civil status: Single
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2 About

After obtainng my Electrical Engineering degree and during my doctoral stance, I have acquired experience and skills in technological solutions development applied to a wide range of fields, from embedded systems development, through scientific computing methods, to mathematical modeling and multiplatform software development. I have worked in both professional and academic environments, working independently or in multidisciplinary teams. I have published articles in international journals, won innovation competitions and participated in many national and international conferences.

3 Education

2021	**National University of the South** PhD Engineering. Thesis title: "Development of Computer Systems for Supporting Agricultural Work in the Southwest of the Buenos Aires Province" Thesis grade: 10/10.
2016	**National University of the South** Electronic Engineer. Thesis title: "Scheduling of Optional-Mandatory Real-Time Tasks in Homogeneous Multicore Systems with Energy Constraints" GPA: 8.17/10.
2006	**Escuela de Agricultura y Ganadería U.N.S.** Agriculture Production B.S. GPA: 7.79/10.

4 Teaching experience

2018 - 2020	**Teaching assistant** Digital Electronics and Logic Circuit Design.
2016 - 2018	**Graduate teaching collaborator** Digital Electronics and Logic Circuit Design.

5 Scholarships

2021 - 2024 | **CONICET Postdoctorate Intern Scholarship**
"Automated Learning for Smart Decision Making in Precision Agriculture in the South West of Buenos Aires Province".
Advisor: Dr. Carlos Chesñevar.
Co-Advisor: Dr. Juan Galantini.

2016 - 2021 | **CONICET PhD Intern Scholarship**
"Development of Computer Systems for Supporting Agricultural Work in the Southwest of the Buenos Aires Province".
Advisor: Dr. Rodrigo Santos.
Co-Advisor: Dr. Juan Galantini.

2015 - 2016 | **PGI-MAyDS Research Scholarship**
"Sustainability in Civil Infrastructure".
Advisor: Dr. Néstor Ortega.
Secretaría General de Ciencia y Tecnología U.N.S. Res. CSU-752/15.

2014 | **Introduction to Scientific Research for Advanced Students**
Tema: *"Optimal Real-Time Scheduling in Multicore Systems".*
Advisor: Dr. Javier Orozco.
Secretaría General de Ciencia y Tecnología U.N.S.
Res. CSU-135/14.

2014 | **Intern Scholarship Incentive Program**
Dpto. de Ingeniería Eléctrica y Computadoras U.N.S.
Res. CSU-213/14.

2013 | **Intern Scholarship Incentive Program**
Dpto. de Ingeniería Eléctrica y Computadoras U.N.S.
Res. CSU-128/13.

6 Journal articles

2022 | **Flow Scheduling in Data Center Networks with Time and Energy Constraints: A Software-Defined Network Approach.**
Martin Fraga, Matías Micheletto, Andrés Llinás, Rodrigo Santos and Paula Zabala.
Future Internet — MDPI.

2022 | **A novel approach for sEMG gesture recognition using resource-constrained hardware platforms.**
Matías Micheletto, Carlos Chesñevar and Rodrigo Santos.
Computer and Information Systems.

2021 | **An IoT-based Infraestructure to Enhance Self-Evacuations in Natural Hazardous Events.**
Mariano Finochietto, Gabriel Eggly, Matías Micheletto, Roger Pueyo Centelles, Roc Messeguer, Sergio Ochoa, Rodrigo Santos, Javier Orozco.
Personal ans Ubiquitous Computing.

2020	**Development and Validation of a LiDAR Scanner for 3D Evaluation of Soil Vegetal Coverage.**
	Matías Micheletto, Luciano Zubiaga, Rodrigo Santos, Juan Galantini, Miguel Cantamutto, Javier Orozco.
	Electronics, 9(1), 109.
2019	**Utilizando UML para el aprendizaje del modelado y diseño de sistemas ciber-físicos.**
	Leonardo Ordínez, Rodrigo Santos, Gabriel Eggly, Matías Micheletto.
	IEEE-RITA, 15(1), 50-60.
2019	**Scheduling Mandatory-Optional-Time Tasks in Homogeneous Multi-Core Systems with Energy Constraints Using Bio-Inspired Meta-Heuristics.**
	Matías Micheletto, Rodrigo Santos, Javier Orozco.
	Journal of Universal Computer Science, 25(4), 390-417.
2018	**Flying Real-Time Network to Coordinate Disaster Relief Activities in Urban Areas.**
	Matías Micheletto, Vinicius Petrucci, Rodrigo Santos, Javier Orozco, Daniel Mosse, Sergio Ochoa, Roc Meseguer.
	Sensors, 18(5), 1662.
2017	**Real-Time Communication Support for Underwater Acoustic Sensor Networks.**
	Rodrigo Santos, Javier Orozco, Matías Micheletto, Sergio Ochoa, Roc Meseguer, Pere Milan, Carlos Molina.
	Sensors, 17(7), 1629.

7 Awards

2021	**Agrotón 2021 - 24h innovation contest**
	First Place.
	Equipo A: Matías Micheletto, Alejandro André, Matías Timi, Martín Rodríguez and Guido Temperini.
	Technological proposal: Traceability of Meat Products Based on Agrigenomics, DNA-Hashing and Blockchain (TR4).
2018	**Agrotón 2018 - 24h innovation contest**
	Second Place.
	Equipo A: Matías Micheletto, Alejandro André, Matías Timi, José Augusto Strick, Franco Tronelli and Guido Temperini.
	Technological proposal: Automation and Integral Information Package for Agriculture Solutions (PAIISA).

8 Posgraduate courses

2020	**"Advanced Techniques for Evolutionary Computation".**
	Department for Computer Science and Engineering
	By: Dr. Ingnacio Ponzoni.
	Duration: 120hs. Grade: 10/10.

2020	**"Visual Analysis for Big Data".** Department for Computer Science and Engineering By: Dr. Silvia Castro and Dr. Ma. Luján Ganuza. Duration: 90hs. Grade: 10/10.
2020	**"Time Aware Collaborative Systems".** Department for Electrical Engineering and Computers By: Dr. Javier Orozco and Dr. Rodrigo Santos. Duration: 60hs. Grade: 10/10.
2017	**"Datamining and Machine Learning".** Department for Computer Science and Engineering By: Dr. Carlos Chesñevar. Duration: 90hs. Grade: 10/10.
2017	**"Introduction to Big Data".** Department for Electrical Engineering and Computers By: Dr. Claudio Delrieux. Duration: 80hs. Grade: 10/10.
2017	**"Mathematical Models and Simulation in Agriculture Research".** Departamento de Agronomía. By: Dr. Juan Galantini. Duration: 60hs. Grade: 10/10.
2016	**"Real Time Distributed Systems".** Department for Electrical Engineering and Computers By: Dr. Ricardo Cayssials and Dr. Edgardo Ferro. Duration: 60hs. Grade: 10/10.
2016	**"Internet of Things and Control, an Holistic Approach".** Department for Electrical Engineering and Computers By: Dr. Rodrigo Santos and Dr. Sergio Ochoa. Duration: 60hs. Grade: 10/10.

9   Internships

2014	**Department for Electrical Engineering and Computers - U.N.S. Internship** Multimedia Interactive Applications for Physics Education. Duration: 10 month.

10   Conferences

2021	**50º Jornadas Argentinas de Informática** Congreso de AgroInformática (CAI) *"Desarrollo de una aplicación híbrida para cálculos de siembra".* Matías J. Micheletto, Gabriel M. Eggly, Juan P. D'Amico and Santiago J. Crocioni.
2021	**50º Jornadas Argentinas de Informática** Simposio Argentino de Informática Industrial e Investigación Operativa (SIIO) *"Planificación de flujos con vencimiento en redes definidas por software".* Martín Fraga, Andres Llinás, Matías J. Micheletto, Rodrigo M. Santos and Paula Zabala.

2020	**International Conference on Computer Science and Intelligent Systems** *"Unattended Crowdsensing Method to Monitor the Quality Condition of Dirt Roads".* Matías J. Micheletto, Rodrigo Santos, Sergio Ochoa.
2020	**49º Jornadas Argentinas de Informática** Simposio Argentino de Educación en Informática (SAEI) *"Cipressus: Un Sistema de Gestión de Contenido para el Aprendizaje de Sistemas Digitales".* Matías J. Micheletto.
2019	**13th International Conference on Ubiquitous Computing & Ambient Intelligence** *"Evacuation Supporting System Network (ESSN) based on IoT Components".* Gabriel Eggly, José Mariano Finochietto, Matías Micheletto, Rodrigo Santos, Sergio Ochoa, Roc Meseguer and Javier Orozco.
2019	**48º Jornadas Argentinas de Informática** 1º Taller Argentino de Internet de las Cosas (TAIC) *"Internet de las Cosas como Bien Social".* Gabriel Eggly, Mariano Finochietto, Matías J. Micheletto, Rodrigo Santos.
2018	**47º Jornadas Argentinas de Informática** 10º Congreso de AgroInformática (CAI 2018) *"Diseño e Implementación de un Escáner Lidar para Análisis Tridimensional de Covertura Vegetal de Suelos".* Matías J. Micheletto, Rodrigo Santos, Luciano Zubiaga, Juan Galantini.
2017	**XXV Jornadas de Jóvenes Investigadores** *"Planificación Óptima de un Sistema Multiprocesador de Tiempo Real con Restricciones de Precedencia, Comunicación y Energía".* Matías J. Micheletto, Alejandro Borghero, Gabriel M. Eggly.
2017	**46º Jornadas Argentinas de Informática** 9º Congreso de AgroInformática (CAI 2017) *"Desarrollo de una Aplicación Móvil para Cálculos de Pulverizaciones Agrícolas".* Gabriel M. Eggly, Matías J. Micheletto, Juan P. D'Amico, Santiago J. Crocioni.
2016	**V Congreso Internacional sobre Cambio Climático y Desarrollo Sustentable** *"Afectación de la Luna en la Medición de la Contaminación Lumínica".* Luciana C. Lambertucci, Matías J. Micheletto, Jorge A. Starobinsky, Néstor F. Ortega.
2016	**10th International Conference on Ubiquitous Computing & Ambient Intelligence** *"Scheduling Real-Time Traffic in Underwater Acoustic Wireless Sensor Networks".* Rodrigo Santos, Javier Orozco, Matías Micheletto, Sergio Ochoa, Roc Meseguer, Pere Millan, Carlos Molina.
2016	**45º Jornadas Argentinas de Informática** 8º Congreso de AgroInformática (CAI 2016) *"Diseño e Implementación de un Registrador de Esfuerzos para Maquinaria Agrícola".* Matías J. Micheletto, Gabriel M. Eggly, Rodrigo Santos.
2015	**V Brazilian Symposium on Computing Systems Engineering** *"Using bioinspired meta-heuristics to solve reward-based energy-aware mandatory/optional real-time tasks scheduling".* Matías J. Micheletto, Javier D. Orozco, Rodrigo Santos.

2014	**Simposio Argentino de Sistemas Embebidos**
	Foro tecnológico 2014
	"Design and Implementation of an Embedded Prototype for Monitoring a Combine Harvester".
	Ana S. Arauz Lozano, Matías J. Micheletto, Leonardo Ordinez, Rodrigo Santos.
2012	**41º Jornadas Argentinas de Informática**
	Concurso de Trabajos Estudiantiles U.N.L.P.
	"Optimizador de Funciones Multivariadas por Enjambre de Partículas".
	Matías J. Micheletto.

11 Project evaluation

2019	**FONCyT-ANPCyT**
	PICT-START UP-2018
	Collaboration as Project Evaluator Peer.
2017	**CLEI 2017 / 46 JAIIO**
	Simposio Latinoamericano de Infraestructura, Hardware y Software 2017.
	Collaboration as Article Reviewer.

12 Language

Spanish
Native speaker.

English
B2-Upper-Intermediate (Listening: B1-Intermediate, Reading: C2-Proficient).