



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 6648

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Filosofia Piero Martinetti**

Scientist- in - charge: **HYKEL HOSNI**

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	RAMIREZ ABARCA
Name	ALDO IVAN

PRESENT OCCUPATION

Appointment	Structure
SENIOR DATA SCIENTIST, PROJECT MANAGER	WIZELINE INC

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	MATHEMATICS	UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO (UNAM)	2012
Specialization	TOPOLOGY	UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO (UNAM)	2012
PhD	LOGIC	UTRECHT UNIVERSITY	2023
Master	LOGIC	UNIVERSITY OF AMSTERDAM	2015
Degree of medical specialization			
Degree of European specialization			



Other			
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REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City

FOREIGN LANGUAGES

Languages	level of knowledge
ENGLISH	FLUENT
SPANISH	NATIVE

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award

TRAINING OR RESEARCH ACTIVITY

<p>ERC-funded project "Responsible Intelligent Systems," led by Dr. Jan Broersen. The project aimed at the automation of responsibility-checking in AI. The idea was to create and implement logics of responsibility, tailored to the demand of harnessing automated/autonomous/intelligent decision-making in cases where decisions have ethical implications.</p> <p>I developed agent models and proof systems relevant in the design and verification of explainable ethical AI. At the level of design, the models can be used to interpret and explain opaque sub-symbolic AI's. At the level of verification, the models, resp. proof systems, can be used to perform model checking, resp. automated theorem-proving.</p> <p>I led a sub-project whose goal was to test hybrid AI (with sub-symbolic learning and symbolic verification). The sub-project aimed at (1) interpreting the decisions of a deep neural network as formulas of a logic-based formalism, (2) representing graded responsibilities in such a formalism, and (3) building translations into formulas of alternating-time temporal logic, to be checked by model checkers.</p>
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PROJECT ACTIVITY

Year	Project
2016-2023	ERC-funded project "Responsible Intelligent Systems"



PATENTS

Patent

CONGRESSES AND SEMINARS

Date	Title	Place
2023	TARK 2023	Oxford, United Kingdom
2022	DaLi workshop 2022.	Online
2021	TARK 2021	Online
2019	DaLi workshop 2019.	Porto, Portugal
2019	JELIA 2019	Rende, Italy
2019	REINS conference	Utrecht, The Netherlands
2018	AAMAS 2018	Stockholm, Sweden
2018	DEON 2018	Utrecht, The Netherlands
2017	Current Trend in Deontic Logic 2017	Slovakia, Bratislava

PUBLICATIONS

Articles in reviews
Abarca, A. I. R., & Broersen, J. (2021b). Stit semantics for epistemic notions based on information disclosure in interactive settings. <i>Journal of Logical and Algebraic Methods in Programming</i> , 123, 100708. Doi:10.1016/j.jlamp.2021.100708.
Duijf, H., Broersen, J., Kunčová, A., & Abarca, A. I. R. (2021). Doing without action types. <i>The Review of Symbolic Logic</i> , 14(2), 380--410. Doi:10.1017/S1755020320000362.

Congress proceedings
Abarca, A. I. R. (2023). A logic-based analysis of responsibility. <i>Electronic Proceedings in Theoretical Computer Science</i> , 379, 470--486, doi:10.4204/EPTCS.379.36.
Abarca, A. I. R., & Broersen, J (2023). A stit logic of intentionality. In: Areces, C., Costa, D. (eds) <i>Dynamic Logic. New Trends and Applications. DaLi 2022. Lecture Notes in Computer Science</i> , vol 13780. Springer, 125--153. doi:10.1007/978-3-031-26622-5_8.
Abarca, A. I. R., & Broersen, J. (2022). A stit logic of responsibility. In <i>Proceedings of the 21st international conference on autonomous agents and multiagent systems</i> (pp. 1717--1719). url:https://dl.acm.org/doi/10.5555/3535850.3536087.



Abarca, A. I. R., & Broersen, J. (2021a). A deontic stit logic based on beliefs and expected utility. *Electronic Proceedings in Theoretical Computer Science*, 335, 281--294. Doi:10.4204%2Feptcs.335.27.

Abarca, A. I. R., & Broersen, J. (2019b). Stit semantics for epistemic notions based on information disclosure in interactive settings. In *International workshop on dynamic logic* (pp. 171--189). Doi:10.1007/978-3-030-38808-9_11.

Abarca, A. I. R., & Broersen, J. (2019a). A logic of objective and subjective oughts. In *European conference on logics in artificial intelligence* (pp. 629--641). doi:10.1007/978-3-030-19570-0_41.

Broersen, J., & Abarca, A. I. R. (2018b). Knowledge and subjective oughts in stit logic. In *Proceedings of DEON* (pp. 51--69). url:<https://dblp.uni-trier.de/rec/conf/deon/BroersenA18.html>.

Broersen, J., & Abarca, A. I. R. (2018a). Formalising oughts and practical knowledge without resorting to action types. In *Proceedings of the 17th International Conference on Autonomous Agents and Multiagent Systems* (pp. 1877--1879).

OTHER INFORMATION

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

Please DO NOT SIGN this form.

Place and date: Mexico City, June 3, 2024