# Curriculum Vitæ

Name: Gerardo Ignacio Simari

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## A. Current Position:

• **EPSRC Senior Researcher** in the Information Systems Group, Department of Computer Science, University of Oxford. April 2012 – Present.

# B. Research Interests:

Reasoning under Uncertainty

- Logic Programming, Probabilistic Logic Programming
- Ontology Languages for the Semantic Web
- Inconsistency Management in Databases
- Reasoning with preferences

- Autonomous Agents and Multi-agent Systems
- Reasoning about Complex Networks
- Belief revision
- Cyber Security and Cyber Warfare
- Computational Cultural Dynamics

## C. Qualifications:

PhD in Computer Science, year 2010, University of Maryland College Park.

Thesis Title: "Stochastic Reasoning with Action Probabilistic Logic Programs"

Advisor: V.S. Subrahmanian

- Master of Science, year 2007, University of Maryland College Park.
- Magister in Computer Science, year 2004, Universidad Nacional del Sur.

Thesis Title: "Rational Decision Making in Autonomous Agents"

Dept. of Computer Science and Engineering, Universidad Nacional del Sur, Bahía Blanca, Argentina.

Advisors: Simon D. Parsons (Brooklyn College, City University of New York) and

Marcelo A. Falappa (Universidad Nacional del Sur)

Referees: Milind Tambe (University of Southern California, USA) and

Martijn Schut (Vrije Universiteit, Netherlands).

• Licenciado in Computer Science, year 2002, Universidad Nacional del Sur

GPA: 10.00 / 10.00 points

Thesis title: Architectures for Intelligent Agents

Dept. of Computer Science and Engineering, Universidad Nacional del Sur, Bahía Blanca, Argentina.

The Licenciatura is a five year program comprising 25 courses (all Computer Science and Mathematics, two are elective), an English sufficiency exam, and a thesis.

# D. Current and Recent Research Projects and Grants

- Co-investigator in "Proqaw: Probabilistic Ontological Query Answering on the Web". Amount: £813,812 (approx. \$1.3M), Awarded by the Engineering and Physical Sciences Research Council (EPSRC) of the United Kingdom for 2012-2015. PI: Thomas Lukasiewicz (University of Oxford).
- External collaborator in "Combinatorial and Scalable Initiation in Complex Networks". Amount: \$249,000. Awarded by the US Army Research Office for 2012-2014. PI: Paulo Shakarian (US Military Academy, West Point).
- Co-investigator in "Probabilistic Semantic Query Answering on the Web". Amount: \$80,000. Awarded by Google Research for 2011-2012. Pl: Thomas Lukasiewicz (University of Oxford).

## E. Selected Peer-reviewed Publications

### In International Journals:

- 1. Thomas Lukasiewicz, Maria Vanina Martinez, Gerardo I. Simari, and Oana Tifrea-Marciuska: "Preference-based Query Answering in Probabilistic Datalog+/- Ontologies". Journal on Data Semantics, *In Press, 2014.*
- 2. Maria Vanina Martinez, Francesco Parisi, Andrea Pugliese, Gerardo I. Simari, and V.S. Subrahmanian: "Policy-based Inconsistency Management in Relational Databases". International Journal of Approximate Reasoning 55(2): 501–528, 2014.
- 3. Gerardo I. Simari: "Stochastic Reasoning with Action Probabilistic Logic Programs". AI Communications 27: 157–159, 2014
- 4. Georg Gottlob, Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Query Answering under Probabilistic Uncertainty in Datalog+/- Ontologies". Annals of Mathematics and Artificial Intelligence 69(1): 37–72, 2013.
- 5. Gerardo I. Simari, John P. Dickerson, Amy L. Sliva, and V.S. Subrahmanian: "Parallel Abductive Query Answering in Probabilistic Logic Programs". ACM Transactions on Computational Logic 14(2), 2013.
- 6. Paulo Shakarian, Gerardo I. Simari, and V.S. Subrahmanian: "Annotated Probabilistic Temporal Logic: Approximate Fixpoint Implementation". ACM Transactions on Computational Logic 13(2):13, April 2012.
- 7. Gerardo I. Simari, Maria Vanina Martinez, Amy L. Sliva, and V.S. Subrahmanian: "Focused Most Probable World Computations in Probabilistic Logic Programs". Annals of Mathematics and Artificial Intelligence 64(2-3): 113–143, May 2012.
- 8. Paulo Shakarian, Austin Parker, Gerardo I. Simari, and V.S. Subrahmanian: "Annotated Probabilistic Temporal Logic". ACM Transactions on Computational Logic 12(2):14, January 2011.
- 9. Maria Vanina Martinez, Gerardo I. Simari, Amy Sliva, and V.S. Subrahmanian: "CONVEX: Similarity-based Algorithms for Forecasting Group Behaviors". IEEE Intelligent Systems, vol. 23, no. 4, pp. 51–57, Jul/Aug 2008.
- 10. Samir Khuller, Maria Vanina Martinez, Dana Nau, Gerardo I. Simari, Amy Sliva, and V.S. Subrahmanian: "Computing Most Probable Worlds of Action Probabilistic Logic Programs: Scalable Estimation for 10^30,000 Worlds", Annals of Mathematics and Artificial Intelligence, vol. 51, no. 2–4, pp. 295-331, December 2007.
- 11. V. S. Subrahmanian, Massimiliano Albanese, Maria Vanina Martinez, Dana Nau, Diego Recupero, Gerardo I. Simari, Amy Sliva, Octavian Udrea, and Jonathan Wilkenfeld: "CARA: A Cultural Adversarial Reasoning Architecture", IEEE Intelligent Systems, vol. 22, no. 2, pp 12–16, Mar/Apr 2007.

# In International Conferences:

- 12. Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Probabilistic Preference Logic Networks". Proceedings of the 21st European Conference on Artificial Intelligence (ECAI 2014), *To Appear.*
- 13. Paulo Shakarian, Gerardo I. Simari, and Marcelo A. Falappa: "Belief Revision in Structured Probabilistic Argumentation". Proceedings of the 8th International Symposium on Foundations of Information and Knowledge Systems (FoIKS 2014), pp. 324–343.
- 14. Paulo Shakarian, Gerardo I. Simari, Geoffrey Moores, Simon Parsons, and Marcelo A. Falappa: "An Argumentation-based Framework to Address the Attribution Problem in Cyber-Warfare". Proceedings of the 3rd ASE International Conference on Cyber Security (CyberSecurity 2014), *To Appear*.

- 15. Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Preference-based Query Answering in Datalog+/- Ontologies". Proceedings of the 23rd International Joint Conference on Artificial Intelligence (IJCAI 2013), pp. 1017–1023.
- 16. Paulo Shakarian, Gerardo I. Simari, and Devon Callahan: "Reasoning about Complex Networks: A Logic Programming Approach". Proceedings of the 29th Int. Conf. on Logic Programming (ICLP 2013, Tech. Comm), Theory and Practice of Logic Programming, vol. 13:(4–5): Online Supplement, July 2013.
- 17. Thomas Lukasiewicz, Maria Vanina Martinez, Gerardo I. Simari, and Oana Tifrea-Marciuska: "Group Preferences for Query Answering in Probabilistic Datalog+/- Ontologies". Proceedings of the 2013 Int. Conf. on Web Intelligence (WI 2013), pp. 171–178.
- 18. Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Preference-based Query Answering in Probabilistic Datalog+/- Ontologies". Proceedings of the 12th Int. Conference on Ontologies, Databases, and Applications of Semantics (ODBASE 2013), LNCS 8185, pp. 488–500.
- 19. Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Complexity of Inconsistency-Tolerant Query Answering in Datalog+/-". Proceedings of the 12th Int. Conference on Ontologies, Databases, and Applications of Semantics (ODBASE 2013), LNCS 8185, pp. 501–518.
- 20. Thomas Lukasiewicz, Maria Vanina Martinez, Gerardo I. Simari, and Oana Tifrea-Marciuska: "Group Preferences for Query Answering in Datalog+/- Ontologies". Proceedings of the 7th Int. Conf. on Scalable Uncertainty Management (SUM 2013), LNCS 8078, pp. 360–373.
- 21. Tommaso Di Noia, Thomas Lukasiewicz, and Gerardo I. Simari: "Reasoning with Semantic-Enabled Qualitative Preferences". Proceedings of the 7th Int. Conf. on Scalable Uncertainty Management (SUM 2013), LNCS 8078, pp. 374–386.
- 22. Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Preference-based Query Answering in Datalog+/- Ontologies". Proceedings of the 26th Int. Workshop on Description Logics (DL 2013), CEUR vol. 1014, pp. 804–815
- 23. Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Complexity of Inconsistency-Tolerant Query Answering in Datalog+/-". Proceedings of the 26th Int. Workshop on Description Logics (DL 2013), CEUR vol. 1014, pp. 791–803.
- 24. Tommaso Di Noia, Thomas Lukasiewicz, and Gerardo I. Simari: "Reasoning with DL-based CP-nets". Proceedings of the 26th Int. Workshop on Description Logics (DL 2013), CEUR vol. 1014, pp. 640–651.
- 25. Thomas Lukasiewicz, Maria Vanina Martinez, Gerardo I. Simari, and Oana Tifrea-Marciuska: "Query Answering in Datalog+/- Ontologies under Group Preferences and Probabilistic Uncertainty". Proceedings of the 2nd Int. Workshop on Data Management in the Social Semantic Web (DMSSW 2013), ICWE Workshops, pp. 192–206.
- 26. Paulo Shakarian, Gerardo I. Simari, and Robert Schroeder: "MANCaLog: A Logic for Multi-Attribute Network Cascades". Proceedings of the Twelfth Int. Conf. on Autonomous Agents and Multiagent Systems (AAMAS 2013), pp. 1175–1176.
- 27. Thomas Lukasiewicz, Maria Vanina Martinez, Giorgio Orsi, and Gerardo I. Simari: "Heuristic Ranking in Tightly Coupled Probabilistic Description Logics". Proceedings of the 28th Conference on Uncertainty in Artificial Intelligence (UAI 2012), pp. 554–563.
- 28. Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Inconsistency Handling in Datalog+/-Ontologies". Proceedings of the 20th European Conference on Artificial Intelligence (ECAI 2012), pp. 558–563.
- 29. Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Consistent Answers in Probabilistic Datalog+/-Ontologies". Proceedings of the 6th International Conference on Web Reasoning and Rule Systems (RR 2012), LNCS vol. 7497, pp. 156–171.
- 30. Thomas Lukasiewicz, Maria Vanina Martinez, and Gerardo I. Simari: "Inconsistency-Tolerant Query Rewriting for Linear Datalog+/-". Proceedings of the 2nd Workshop on the Resurgence of Datalog in Academia and Industry (Datalog 2.0 2012), LNCS vol. 7494, pp. 123–134.
- 31. Georg Gottlob, Thomas Lukasiewicz, and Gerardo I. Simari: "Answering Threshold Queries in Probabilistic Datalog+/-Ontologies". Proceedings of the 5th Int. Conf. on Scalable Uncertainty Management (SUM 2011), LNCS vol. 6929, pp. 401–414.
- 32. Georg Gottlob, Thomas Lukasiewicz, and Gerardo I. Simari: "Conjunctive Query Answering in Probabilistic Datalog+/-Ontologies". Proceedings of the 5th Int. Conf. on Web Reasoning and Rule Systems (RR 2011), LNCS vol. 6902, pp. 77–92.

- 33. Austin Parker, Gerardo I. Simari, Amy Sliva, and V.S. Subrahmanian: "Approximate Achievability in Event Databases". Proceedings of the 11<sup>th</sup> European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2011), LNCS vol. 6717, pp. 737–748.
- 34. Gerardo I. Simari, John Dickerson, and V.S. Subrahmanian: "Cost-based Query Answering in Action Probabilistic Logic Programs". Proceedings of the 4th Int. Conf. on Scalable Uncertainty Management (SUM 2010), LNCS vol. 6379, pp. 319–332.
- 35. Maria Vanina Martinez, Francesco Parisi, Andrea Pugliese, Gerardo I. Simari, and V.S. Subrahmanian: "Efficient Policy-based Inconsistency Management in Relational Databases". Proceedings of the 4th Int. Conf. on Scalable Uncertainty Management (SUM 2010), LNCS vol. 6379, pp. 264–277.
- 36. Gerardo I. Simari and V.S. Subrahmanian: "Abductive Inference in Probabilistic Logic Programs". Proceedings of the 26th Int. Conf. on Logic Programming (ICLP 2010, Tech. Comm), LIPIcs vol. 7, pp. 192–201.
- 37. John P. Dickerson, Gerardo I. Simari, Sarit Kraus, and V.S. Subrahmanian: "A Graph-Theoretic Approach to Protect Static and Moving Targets from Adversaries", Proceedings of the Ninth Int. Conf. on Autonomous Agents and Multiagent Systems (AAMAS 2010), pp. 299–306.
- 38. Matthias Broecheler, Gerardo I. Simari, and V.S. Subrahmanian: "Using Histograms to Better Answer Queries to Probabilistic Logic Programs", Proceedings of the 25th Int. Conf. on Logic Programming (ICLP 2009), LNCS 5649, pp. 40–54. Selected by the Program Committee as the Best Student Paper.
- 39. Gerardo I. Simari: "Reasoning with Models of Agent Behavior", Proceedings of the 25th Int. Conf. on Logic Programming (ICLP 2009), LNCS 5649, pp. 538–539.
- 40. Avigdor Gal, Maria Vanina Martinez, Gerardo I. Simari, and V.S. Subrahmanian: "Aggregate Query Answering under Uncertain Schema Mappings", Proceedings of the 25th Int. Conf. on Data Engineering (ICDE 2009), pp. 940–951.
- 41. Gerardo I. Simari, Maria Vanina Martinez, Amy Sliva, and V.S. Subrahmanian: "Scaling Most Probable World Computations in Probabilistic Logic programs", Proceedings of the Second Int. Conf. on Scalable Uncertainty Management (SUM 2008), LNCS vol. 5291, pp. 372–385.
- 42. Gerardo I. Simari, Matthias Broecheler, Sarit Kraus, and V.S. Subrahmanian: "Promises Kept, Promises Broken: An Axiomatic and Quantitative Treatment of Fulfillment", Proceedings of the 11th Int. Conf. on Principles of Knowledge Representation and Reasoning, pp. 56–69.
- 43. Maria Vanina Martinez, Francesco Parisi, Andrea Pugliese, Gerardo I. Simari, and V.S. Subrahmanian: "Inconsistency Management Policies", Proceedings of the 11th Int. Conf. on Principles of Knowledge Representation and Reasoning, pp. 367–377.
- 44. Vanina Martinez, Gerardo I. Simari, Amy Sliva, and V.S. Subrahmanian: "The SOMA Terror Organization Portal (STOP): Social Network and Analytic Tools for the Real-time Analysis of Terror Groups", Proceedings of the First Int. Workshop on Social Computing, Behavioral Modeling, and Prediction, pp. 9–18.
- 45. Samir Khuller, Maria Vanina Martinez, Dana Nau, Gerardo I. Simari, Amy Sliva, and V.S. Subrahmanian: "Finding Most Probable Worlds of Probabilistic Logic programs", Proceedings of the First Int. Conf. on Scalable Uncertainty Management (SUM 2007), LNCS vol. 4774, pp. 45–59.
- 46. Maria Vanina Martinez, Andrea Pugliese, Gerardo I. Simari, V.S. Subrahmanian, and Henri Prade: "How Dirty is your Relational Database? An Axiomatic Approach", Proceedings of the Ninth European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2007), LNCS 4724, pp. 103–114.
- 47. Amy Sliva, Maria Vanina Martinez, Gerardo I. Simari, and V.S. Subrahmanian: "SOMA Models of the Behaviors of Stakeholders in the Afghan Drug Economy: A Preliminary Report", Proceedings of the First Int. Conf. on Computational Cultural Dynamics (ICCCD 2007), AAAI Press.
- 48. Gerardo I. Simari and Simon D. Parsons: "On the Relationship between MDPs and the BDI Architecture", Proceedings of the Fifth International Joint Conference on Agents and Multiagent Systems (AAMAS 2006), pp. 1041–1048.
- 49. Gerardo I. Simari, Amy Sliva, Dana Nau, and V.S. Subrahmanian: "A Stochastic Language for Modelling Opponent Agents", Proceedings of the Fifth International Joint Conference on Agents and Multiagent Systems (AAMAS 2006), pp. 244–246.
- 50. Gerardo I. Simari and Simon D. Parsons: "On Approximating the Best Decision for an Autonomous Agent". Proceedings of the VI Workshop on Game Theoretic and Decision Theoretic Agents (GTDT 2004), pages 91–100.

# **Books and Book Chapters:**

- 51. Austin Parker, Gerardo I. Simari, Amy Sliva, and V.S. Subrahmanian: "Data-driven Algorithms for Policy Generation". SpringerBriefs in Computer Science, 1st Edition (2014), ISBN 978-1-4939-0273-6.
- 52. Thomas Lukasiewicz and Gerardo I. Simari: "Tractable Probabilistic Description Logic Programs". Advances in Probabilistic Databases for Uncertain Information Management. Studies in Fuzziness and Soft Computing, Springer-Verlag, 2013, ISBN 978-3-642-37508-8, pp. 131–159.
- 53. Gerardo I. Simari, John P. Dickerson, Amy Sliva, and V.S. Subrahmanian: "Policy Analytics Generation using Action Probabilistic Logic Programs", in Handbook of Computational Approaches to Counter-Terrorism. Springer-Verlag, 2013, ISBN 978-1-4614-5311-6, pp. 515–542.
- 54. Amy Sliva, Gerardo I. Simari, Vanina Martinez, and V.S. Subrahmanian: "SOMA: Stochastic Opponent Modeling Agents for Forecasting Violent Behavior", in Handbook of Computational Approaches to Counter-Terrorism. Springer-Verlag, 2013, ISBN 978-1-4614-5311-6, pp. 99–127.
- 55. Gerardo I. Simari and Simon D. Parsons: "Markov Decision Processes and the Belief-Desire-Intention Model: Bridging the Gap for Autonomous Agents". SpringerBriefs in Computer Science, 1st Edition (2011), ISBN 978-1-4614-1471-1.
- 56. Amy L. Sliva, V.S. Subrahmanian, Maria Vanina Martinez, and Gerardo I. Simari: "CAPE: Automatically Predicting Changes in Group Behavior", in Mathematical Methods in Counterterrorism, N. Memon, J. D. Farley, D. L. Hicks, and T. Rosenorn, Eds. Springer-Verlag, 2009, pp. 247–263.

## **Technical Reports**:

- 57. Paulo Shakarian, Gerardo I. Simari, and Robert Schroeder: "MANCaLog: A Logic for Multi-Attribute Network Cascades (Technical Report)". arXiv:1301.0302v2 [cs.AI], 2013.
- 58. Thomas Lukasiewicz, Maria Vanina Martinez, Cristian Molinaro, Livia Predoiu, and Gerardo I. Simari: "Top-k Query Answering in Datalog+/- Ontologies under Subjective Reports (Technical Report)". arXiv:1312.0032 [cs.AI], 2013.

# In Argentinian Conferences and Workshops:

- 59. Gerardo I. Simari, Gabriel R. Filocamo, and Diego R. García: "A General Approach to the Implementation of Action Theories", Proceedings of the V Workshop of Researchers in Computer Science (WICC 2003), pages 541–545. Universidad del Centro de la Provincia de Buenos Aires, Tandil, Argentina.
- 60. Marcelo A. Falappa and Gerardo I. Simari: "Non Prioritized Reasoning in Intelligent Agents", Proceedings of the V Workshop of Researchers in Computer Science (WICC 2003), pages 237–240. Universidad del Centro de la Provincia de Buenos Aires, Tandil, Argentina.
- 61. Gerardo I. Simari, Gabriel R. Filocamo, and Diego R. García: "The Monkey and Bananas Problem Revisited: A Situation Calculus Approach", Proceedings of the IX Argentine Conference on Computer Science (CACIC 2003), La Plata, Buenos Aires, Argentina. Pages 752–764.
- 62. Simon D. Parsons and Gerardo I. Simari: "On the Problem of Comparing Two Models for Rational Decision Making in Autonomous Agents", Proceedings of the IX Argentine Conference on Computer Science (CACIC 2003), La Plata, Buenos Aires, Argentina. Pages 705–716.
- 63. Gerardo I. Simari and Marcelo A. Falappa: "Belief Dynamics and Explanations in AnsProlog\*", Proceedings of the IX Argentine Conference on Computer Science (CACIC 2003), La Plata, Buenos Aires, Argentina. Pages 589–600.
- 64. Gerardo I. Simari and Marcelo A. Falappa: "Non Prioritized Belief Revision with AnsProlog\*". Proceedings of the VI Workshop of Researchers in Computer Science (WICC 2004), pages 341–345. Universidad Nacional del Comahue, Neuquén, Argentina.
- 65. Gerardo I. Simari and Simon. D. Parsons: "Rational Decision Making in Autonomous Agents". Proceedings of the VI Workshop of Researchers in Computer Science (WICC 2004), pages 355–359. Universidad Nacional del Comahue, Neuquén, Argentina.
- 66. Alejandro J. García, Gerardo I. Simari, Telma Delladio, Diego R. García, Mariano Tucat, Nicolás D. Rotstein, Fernando A. Martín, and Sebastián Gottifredi: "Cognitive Robotics in a Soccer Game Domain: a Proposal for the E-League Competition". Proceedings of the VI Workshop of Researchers in Computer Science (WICC 2004), pages 289–293. Universidad Nacional del Comahue, Neuquén, Argentina.
- 67. Gerardo I. Simari: "La racionalidad desde el punto de vista de la Inteligencia Artificial". "La investigación joven en la Argentina de hoy": Proceedings of the I Workshop of Young Researchers in Human Sciences, Universidad Nacional del Sur, Bahía Blanca, Argentina, 2004. Pp. 715–717 (in Spanish).

- 68. Gerardo I. Simari and Marcelo A. Falappa: "Non Prioritized Answer Set Revision". Proceedings of the X Argentine Conference on Computer Science (CACIC 2004), La Matanza, Buenos Aires, Argentina. Pp. 1811–1822. ISBN: 987-9495-58-6.
- 69. Alejandro J. García, Gerardo I. Simari, and Telma Delladio: "Designing an Agent System for Controlling a Robotic Soccer Team". Proceedings of the X Argentine Conference on Computer Science (CACIC 2004), La Matanza, Buenos Aires, Argentina. Pp. 1646–1656. ISBN: 987-9495-58-6.

## F. Research Positions

- EPSRC Senior Researcher in the Information Systems Group, Department of Computer Science, University of Oxford. April 2012 – Present.
- Fulford Junior Research Fellow in Somerville College, University of Oxford. 2011–2013.
- ERC/Google Postdoctoral Research Assistant in the Information Systems Group, Department of Computer Science, University of Oxford, supervised by Georg Gottlob and Thomas Lukasiewicz. February 2011 – March 2012.
- Graduate Research Assistant in the University of Maryland Institute for Advanced Computer Studies (UMIACS) for V.S. Subrahmanian. August 2005 – December 2010.
- Member of the Laboratory for Computational Cultural Dynamics (LCCD) in the University of Maryland Institute for Advanced Computer Studies (UMIACS). August 2005 – December 2010.
- Member of the Artificial Intelligence Research and Development Laboratory (LIDIA) in the Department of Computer Science and Engineering, Universidad Nacional del Sur (Bahia Blanca, Argentina). August 2002 – August 2005.

# G. Teaching Positions

- Class Tutor in the Department of Computer Science, University of Oxford, for the course "Theory of Data and Knowledge bases (Hilary Term, 2012 and 2014).
- **Teaching Assistant** in the Department of Computer Science, University of Oxford, for the course "Theory of Data and Knowledge bases (Hilary Term, 2011 and 2013).
- **Professor** for the "Problem Analysis and Comprehension" preparation course for freshmen. Department of Computer Science and Engineering, Universidad Nacional del Sur, Bahía Blanca, Argentina (January 2005 February 2005).

<u>Description</u>: This position involved giving two-hour lectures four times a week on methods for solving logical and mathematical problems, for an audience composed of freshmen students enrolled in a wide variety of programs. A second two-hour portion after the lectures involved answering questions about homeworks with the aid of teaching assistants. At the end of the course a final exam was administered, and grading was also part of the responsibilities.

- **Head Teaching Assistant** in the Department of Computer Science and Engineering, Universidad Nacional del Sur, Bahía Blanca, Argentina, for the following courses:
  - Fundamentals of Computer Science (First term, 2004 and 2005).
  - Elements of Databases (Second term, 2003 and 2004).
  - Database Theory and Design (Second term, 2004).

<u>Description</u>: Lectures were given in two portions: theory and practice (four hours per week each). The Head Teaching Assistant is in charge of the practice portion and managing the rest of the Teaching Assistants working in the course. Responsibilities include preparing and giving lectures focusing on solving problems by applying the concepts taught in the theory portion, preparing, administering, and grading mid-term exams (usually two per term), preparing homeworks, preparing and grading term projects (usually more than one per tem), and having office hours outside class time to answer questions about homeworks and term projects.

• Graduate Teaching Assistant in the Department of Computer Science and Engineering, Universidad

Nacional del Sur, Bahía Blanca, Argentina, for the following courses:

- Algorithms and Complexity (First term, 2003 and 2004).
- Fundamentals of Computer Science (First term, 2003).
- Database Theory and Design, and Elements of Databases (Second term, 2002).
- Object Oriented Programming (Second term, 2002).

<u>Description</u>: Graduate Teaching Assistants prepare and give lectures focusing on solving problems by applying the concepts taught in the theory portion (in support of those given by the Head TA), administer and grade mid-term exams (usually two per term), grade term projects (usually more than one per tem) and have office hours outside class time to answer questions about homeworks and term projects.

- **Undergraduate Teaching Assistant** in the Department of Computer Science and Engineering, Universidad Nacional del Sur, Bahía Blanca, Argentina, for the following courses:
  - Algorithms and Complexity (First term, 2002).
  - Database Theory and Design (Second term, 2001).
  - Fundamentals of Computer Science (First term, 2001)
  - Problem Solving and Algorithms (First term, 2000).
  - Elements of Programming (Second term, 2000).

<u>Description</u>: Undergraduate teaching assistants have the same responsibilities as graduate ones, except that they only give a handful of lectures and do not have office hours outside class time.

# H. Scholarships

- Full tuition remission for the PhD in Computer Science program at the Department of Computer Science, University of Maryland College Park, awarded by this institution, Fall 2005 December 2010.
- Block Fellowship in recognition of academic excellence and contributions to the field of Computer Science, awarded by the Department of Computer Science, University of Maryland College Park, for the 2005-2006 and 2006-2007 academic years.
- Doctoral research scholarship, awarded by "Consejo Nacional de Investigaciones Científicas y Tecnológicas (CONICET)" of Argentina's National Government, from April to August 2005, before changing to the University of Maryland College Park PhD in Computer Science program.
- Initial research scholarship, awarded by "Comisión de Investigaciones Científicas (CIC)" of the Government of the Province of Buenos Aires, for the years 2003 and 2004.
- Undergraduate Scholarship awarded based on merit by the "Universidad Nacional del Sur" university, for the year 2001 and 2002.

# I. Awards

- Honorable Mention for the *International Journal of Approximate Reasoning Young Researcher Award 2011*, for ongoing research in Probabilistic Logic.
- Best Student Paper at the 25th International Conference on Logic Programming (ICLP 2009) for the paper "Using Histograms to Better Answer Queries to Probabilistic Logic Programs", by Matthias Broecheler, Gerardo I. Simari, and V.S. Subrahmanian.
- "25 de mayo" award to the best grade point average during 2002, awarded by the "Universidad Nacional del Sur" university.
- "Gobierno de la Provincia de Buenos Aires" award to the best general grade point average of the "Universidad Nacional del Sur" university, awarded by the Government of the Province of Buenos Aires, Argentina, in the city of La Plata in May of 2003.
- Second Place in the RoboCup 2004 ELeague Competition held in Lisbon, Portugal. Team leader for the "MateBots" team, Universidad Nacional del Sur.

#### J. Invited Talks

- "Probabilistic Ontological Modeling for the Semantic Web", to be given at Università della Calabria, Dipartamento di Ingegneria Informatica, Modellistica, Elletronica e Sistemistica (DIMES), Rende, Italy, June 2014
- "Reasoning about Incomplete and Uncertain Preferences with Probabilistic Preference Logic Networks", given at University of Liverpool, Department of Computer Science, Liverpool, UK, March 2014.
- "Extending Datalog+/- with Probabilistic Uncertainty": given at United States Military Academy at West Point, Network Science Center. West Point, USA, September 2013.
- "Scalable Stochastic Reasoning in Adversarial Domains", given at Syracuse University, Department of Electrical Engineering and Computer Science, Syracuse, USA, October 2011.

## K. Academic Service

# Conferences and workshops:

- 8th International Conference on Scalable Uncertainty Management (SUM 2014, Local Organization co-chair)
- 22nd Italian Symposium on Advanced Database Systems (SEBD 2014, Reviewer)
- 30th Conference on Uncertainty in Artificial Intelligence (UAI 2014, PC member)
- 8th International Symposium on Foundations of Information and Knowledge Systems (FolKS 2014, PC member)
- 14th International Conference on Principles of Knowledge Representation and Reasoning (KR 2014, Reviewer)
- 2014 IEEE Region 10 Humanitarian Technology Conference (R10 HTC 2014, PC member)
- 2014 Int. Symposium on Foundation of Open Source Intelligence and Security Informatics (FOSINT-SI 2014, PC member)
- 2014 Joint Intelligence and Security Informatics Conference (JISIC 2014: ISI + EISIC, PC member)
- 2014 Int. Conference on Behavioral, Economic, and Socio-cultural Computing International Security and Data Analytics Track (BESC 2014, track PC member)
- 21st European Conference on Artificial Intelligence (ECAI 2014, Reviewer)
- 29th Annual ACM/IEEE Symposium on Logic in Computer Science (LICS 2014, Reviewer)
- 7th International Joint Conference on Automated Reasoning (IJCAR 2014, Reviewer)
- 9th International Workshop on Semantic and Social Media Adaptation and Personalization (SMAP 2014, PC member)
- 29th Conference on Uncertainty in Artificial Intelligence (UAI 2013, PC member)
- 23rd International Joint Conference on Artificial Intelligence (IJCAI 2013, PC member)
- 9th Doctoral Consortium on Logic Programming (ICLP DC 2013, PC member)
- 2nd International Workshop on Semantic Technologies meet Recommender Systems & Big Data (SeRSy 2013, PC member)
- 2013 European Intelligence and Security Informatics Conference (EISIC, PC member)
- 2013 Int. Symposium on Foundation of Open Source Intelligence and Security Informatics (FOSINT-SI 2013, PC member)
- 28th Conference on Uncertainty in Artificial Intelligence (UAI 2012, PC member)
- 8th Doctoral Consortium on Logic Programming (ICLP DC 2012, PC member)
- 11th International Conference on Autonomous Agents and Multi-agent Systems (AAMAS 2012, PC member)
- 7th International Symposium on Foundations of Information and Knowledge Systems (FolKS 2012, PC member)
- 2nd International Workshop on Searching and Integrating New Web Data Sources (VLDS 2012)
- 2012 Int. Workshop on Semantic Technologies meet Recommender Systems & Big Data (SeRSy 2012, PC member)
- 2012 Int. Symposium on Foundation of Open Source Intelligence and Security Informatics (FOSINT-SI 2012, PC member)
- 2012 Int. Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction (SBP 2012; publicity co-chair)
- 2012 European Intelligence and Security Informatics Conference (EISIC, PC member)
- 13th International Conference on Information Reuse and Integration (IRI 2012, **Reviewer**)
- 2011 Principles of Database Systems Conference (PODS 2011, Reviewer).
- 19th ACM International Conference on Information and Knowledge Management (CIKM 2011, Reviewer)
- 11th European Conf. on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2011, Reviewer)
- 22nd International Joint Conference on Artificial Intelligence (IJCAI 2011, PC member)

- 8th Extended Semantic Web Conference (ESWC 2011, Reviewer)
- 2011 European Intelligence and Security Informatics Conference (EISIC, PC member)
- 2nd International Conference on Computational Cultural Dynamics (ICCCD 2008, now merged with SBP, PC member)
- 1st International Conference on Scalable Uncertainty Management (SUM 2007, Reviewer)

#### Journals:

- Journal of Applied Logic (since 2014)
- Theoretical Computer Science (since 2014)
- International Journal on Digital Libraries (since 2014)
- ACM Transactions on Computational Logic (since 2013)
- International Journal on Semantic Web and Information Systems (since 2013)
- ACM Computing Reviews (since 2012)
- Knowledge and Information Systems (since 2012)
- Transactions on Large-Scale Data- and Knowledge-Centered Systems (since 2012)
- Journal on Data Semantics (since 2012)
- Transactions on Intelligent Systems and Technology (since 2011)
- Journal of the IGPL (since 2011)
- Semantic Web Journal (since 2011)
- AMS Mathematical Reviews (since 2011)
- Transactions on Knowledge and Data Engineering (since 2008)
- Fundamenta Informaticae (since 2009)
- Annals of Mathematics and Artificial Intelligence (since 2007)
- Journal of Autonomous Agents and Multi-Agent Systems (since 2005)

## Awards:

- Italian Association for Artificial Intelligence (AI\*IA) Doctoral Dissertation Award 2013 (Reviewer)
- XV Concurso Latinoamericano de Tesis de Maestría (2008), organized by Centro Latinoamericano de Estudios en Informática (CLEI) (Reviewer)

## L. Other Relevant Information

- Visits to Brooklyn College (CUNY) and Columbia University, New York, to carry out research with Simon D.
  Parsons on the following occasions: Jan/Feb 2003 (30 days), Jan/Feb 2004 (30 days), and Jul 2004 (20
  days). The Agents Lab of the Department of Computer Science, Columbia University, directed by Elizabeth
  Sklar was also visited on each occasion.
- Team leader for the "MateBots" team, which participated in the RoboCup 2004 ELeague Competition held in Lisbon, Portugal, from June 27 to July 5, 2004. The team was part of the Cognitive Robotics Group of the Artificial Intelligence Research and Development Laboratory (LIDIA), and composed by: A. J. García, T. Delladio, D. R. García, G. I. Simari, and students M. Tucat (Computer Engineering), S. Gottifredi (Computer Science), N. D. Rotstein (Computer Engineering), and F. Martín (Computer Engineering).
- Participated in the Doctoral Consortium held in conjunction with the 25th International Conference on Logic Programming (ICLP 2009), Pasadena, California, July 14-17, 2009.
- Participated in the Doctoral Consortium held in conjunction with the 11th International Conference on Principles of Knowledge Representation and Reasoning (KR 2008), Sydney, Australia, Sept. 16-19, 2008.

Mentor: Carles Sierra (Artificial Intelligence Research Institute, Barcelona, Spain).

Languages:

Spanish: Native language.

- English: Fluent

 Modern Greek (Levels I, II, IIIa, and IIIb completed). Professor Mario Ritacco, Department of Humanities, Universidad Nacional del Sur. Attendance.

# M. References

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Oxford, United Kingdom, May 2014