Jose Alberto Rodrigues Pereira Sardinha

Carnegie Mellon University
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PROFESSIONAL EXPERIENCE

Carnegie Mellon University, Pittsburgh, USA.
Post-Doctoral Fellow   **2005 - Present**
e-Supply Chain Management Lab and Mobile Commerce Lab,
School of Computer Science.

Catholic Pontifical University, Rio de Janeiro, Brazil.
Graduate Research Assistant   **1999 - 2005**
Software Engineering Lab and L.E.A.R.N. Lab, Computer Science Department.

IBM, Rio de Janeiro, Brazil.
System Specialist   **1995 - 1999**

EDUCATION

Catholic Pontifical University, Rio de Janeiro, Brazil.
Doctor of Science in Computer Science   **2005**
Dissertation: "MAS-School and ASYNC – A Method and a Framework for Building
Intelligent Agents".
Advisors: Ruy Luiz Milidiú and Carlos José Pereira de Lucena.
Honors: Summa Cum Laude (GPA: 4.0 / 4.0).

Catholic Pontifical University, Rio de Janeiro, Brazil.
Master of Science in Computer Science   **2001**
Dissertation: "VGroups - A framework for Consuming Groups".
Advisor: Ruy Luiz Milidiú.
Honors: Summa Cum Laude (GPA: 3.8 / 4.0).

Catholic Pontifical University, Rio de Janeiro, Brazil.
Graduate Specialization Course in Corporate Finance   **1998**

Catholic Pontifical University, Rio de Janeiro, Brazil.
Bachelor of Science in Computer Engineering   **1997**
Monograph: Debugging environments for distributed programming languages.
Advisor: Noemi Rodriguez.

RESEARCH INTERESTS

Novel techniques for Adaptive Supply Chain Trading and Negotiation, such as automated and
semi-automated negotiation techniques aimed at empowering enterprises to more effectively evaluate
large numbers of trading options.

Novel techniques for Agent Oriented Software Engineering, such as Design Patterns, Object-
Oriented Frameworks and Methodologies.

AWARDS

• Second place in the Trading Agent Competition (TAC) – SCM Procurement Challenge and Finalist in the Trading Agent Competition (TAC) – SCM Baseline Competition. Twenty-Second Conference on Artificial Intelligence (AAAI-07), Vancouver, Canada.	**2007**
• Third place in the Trading Agent Competition (TAC) - Travel Game. Third International Joint Conference on Autonomous Agents & Multi Agent Systems, New York, USA.	**2004**
• Best Professor Award, FGV São José dos Campos, SP, Brazil.	**2003**
• Second prize in the undergraduate research competition of the Brazilian Society of Computational and Applied Mathematics, Curitiba, Brazil.	**1995**
• Excellent Academic Achievement Award, Catholic Pontifical University, Rio de Janeiro, Brazil.	**1993**

FELLOWSHIPS

• Post-Doctoral Fellowship from CAPES (Brazilian Ministry of Education), Carnegie Mellon University.	**2005-2006**
• Post-Doctoral Fellowship from CNPq (Brazilian National Council for Science and Technology), Catholic Pontifical University of Rio de Janeiro.	**2005**
• Ph.D. Fellowship from CNPq (Brazilian National Council for Science and Technology), Catholic Pontifical University of Rio de Janeiro.	**2001 - 2005**
• M.Sc. Fellowship from FAPERJ (Rio de Janeiro Government), Catholic Pontifical University of Rio de Janeiro. - Award given to the top student in the Computer Science Department.	**2000 - 2001**
• M.Sc. Fellowship from CAPES (Brazilian Ministry of Education), Catholic Pontifical University of Rio de Janeiro.	**1999 - 2000**
• Undergraduate Research Fellowship from CNPq (Brazilian National Council for Science and Technology), Catholic Pontifical University of Rio de Janeiro.	**1993 - 1995**

TEACHING EXPERIENCE

Catholic Pontifical University, Rio de Janeiro, Brazil. **Lecturer** – "Java and Web Applications". Developed syllabus and overall course structure, and administered all grades.	**2001 - 2005**
Getulio Vargas Foundation, Rio de Janeiro, Brazil. **Lecturer** – "Technologies for e-Management" and "Cost Accounting and Pricing Methodologies". Developed syllabus and overall course structure, and administered all grades.	**2001 - 2005**
Catholic Pontifical University, Rio de Janeiro, Brazil. **Teaching Assistant** – "Machine Learning" (2005), "Algorithm Projects and Analysis" (2001) and "Calculus I" (1992-1993). Collaborated on curriculum and exam development, met with students upon request, and graded all written work, including final exam papers.	

Editorial Duties:	**2006**
• Associate Editor of the Electronic Commerce Research and Applications, Elsevier.	
Organizing Committee:	
• Game Master of the Trading Agent Competition (TAC) – Procurement Challenge, The Twenty-Second Conference on Artificial Intelligence (AAAI-07), Vancouver, Canada.	**2007**
• Game Master of the Trading Agent Competition (TAC) - Travel Game, Fifth International Joint Conference on Autonomous Agents and Multi-Agent Systems, Hakodate, Japan.	**2006**
• Organizing Committee of the Second International Workshop on Software Engineering for Large-Scale Multi-Agent Systems (SELMAS-03) at ICSE-03, Portland, Oregon, USA.	**2003**
Conference Committees:	
• Program Committee, The Twenty-Third Conference on Artificial Intelligence (AAAI-08).	**2008**
• Program Committee, The Tenth International Workshop on Agent Mediated Electronic Commerce (AMEC 2008) at AAMAS-08.	**2008**
• Program Committee, Trading Agent Analysis and Design Workshop (TADA-08) at AAAI-08.	**2008**
• Program Committee, The Twenty-Second Conference on Artificial Intelligence (AAAI-07).	**2007**
• Program Committee, Sixth International Joint Conference on Autonomous Agents & Multi Agent Systems (AAMAS-07).	**2007**
• Program Committee, Trading Agent Analysis and Design Workshop (TADA-07) at AAAI-07.	**2007**
• Program Committee, Third Workshop on Software Engineering for Agent-oriented Systems (SEAS-07).	**2007**
• Program Committee, Fifth International Joint Conference on Autonomous Agents & Multi Agent Systems (AAMAS-06).	**2006**
• Program Committee, Second Workshop on Software Engineering for Agent-oriented Systems (SEAS-06).	**2006**
• Program Committee, Trading Agent Analysis and Design Workshop (TADA/AMEC-06) at AAMAS-06.	**2006**
• Program Committee, First Workshop on Software Engineering for Agent-oriented Systems (SEAS-05).	**2005**
• Reviewer, VI Workshop de Software Livre.	**2005**
• Program Committee, Second International Workshop on Software Engineering for Large-Scale Multi-Agent Systems (SELMAS-03) at ICSE-03.	**2003**
Journal reviewer:	
• Program Committee for the special issue on Software Engineering for Multi-Agent Systems (JBCS-SEAS) of the Journal of the Brazilian Computer Society (JBCS).	**2007**
• Reviewer, Journal of Systems and Software, Elsevier.	**2005**
• Reviewer, International Journal of Software Engineering and Knowledge Engineering.	**2004**

Invited Talks:

- "Trading Agent Competition", Fundação Educacional Serra dos Órgãos (FESO), Teresópolis, Brazil. **2004**

Panels:

- Panelist, "Directions for Trading Agents Research", Workshop on Trading Agent Design and Analysis (TADA-05 in IJCAI-05). **2005**

LANGUAGES

- Portuguese – native language.
- English – speak fluently and read/write with high proficiency.
- Spanish – speak fluently and read/write with basic competence.
- French – speak and read with basic competence.

MEMBERSHIPS

- Association for Computing Machinery (ACM)

PUBLICATIONS

JOURNAL PAPERS

- Jinghai Rao, Alberto Sardinha, Norman Sadeh. ***A Semantic Web Framework for Enforcing Context-Sensitive Policies***. Journal of Web Semantics (ISSN: 1570-8268), Elsevier, 2007. (accepted)
- Katia Rocha, Luciana Salles, Francisco A. Alcaraz Garcia, José Alberto R. P. Sardinha, José Paulo Teixeira. ***Real Estate and Real Options – A Case Study***. Emerging Markets Review (ISSN: 1566-0141), Elsevier, Vol. 8, Issue 1, pp. 67-79, Mar. 2007.
- José Alberto R. P. Sardinha, Ricardo Choren, Viviane Torres, Ruy L. Milidiú, Carlos J. P. Lucena. ***A Combined Specification Language and Development Framework for Agent-based Application Engineering***. Journal of Systems and Software (ISSN: 0164-1212), Elsevier, Vol. 79, Issue 11, pp. 1565-1577, Nov. 2006.
- Alessandro F. Garcia, José Alberto R. P. Sardinha, Carlos J. P. Lucena, Julio Leite, Ruy Milidiú, Jaelson Castro, Alexander Romanovsky, Martin Griss, Rogério de Lemos, Anna Perini. ***Software Engineering for Large-Scale Multi-Agent Systems – SELMAS 2003***. ACM SIGSOFT Software Engineering Notes (ISSN: 0163-5948), Vol. 28, Num. 6, pp. 1-1, Nov. 2003.
- José Alberto R. P. Sardinha, Paula C. Ribeiro, Carlos J. P. Lucena, Ruy L. Milidiú. ***An Object-Oriented Framework for Building Software Agents***. Journal of Object Technology (ISSN: 1660-1769), Vol. 2, Num. 1, pp. 85-97, Jan. - Feb. 2003.

BOOK CHAPTERS

- José Alberto R. P. Sardinha, Alessandro F. Garcia, Carlos J. P. Lucena, Ruy L. Milidiú. ***A Systematic Approach for Including Machine Learning in Multi-Agent Systems***. In: Bresciani, P.; Giorgini, P.; Henderson-Sellers, B.; Low, G.; Winikoff, M. (Eds.). Agent-Oriented Information Systems II. Revised Selected Papers from 6th International Bi-Conference Workshop AOIS 2004. Published by Springer-Verlag, Lecture Notes in Artificial Intelligence, ISBN 35-4025-911-2, pp. 198-211, Vol. 3508, 2005.
- Flavio Bevilacqua, José Alberto R. P. Sardinha. ***Estruturas dinâmicas de incentivos para grupos de consumo***. In: Lucena, C.J.P.; Milidiú, R.L. (Eds.). Sistemas Multi-Agentes. Published by Papel Virtual Editora. ISBN 85-7493-155-1, July 2001.
- João A.P. Magalhães, José Alberto R. P. Sardinha. ***A Critical Look Upon Agent UML***. In: Lucena, C.J.P.; Milidiú, R.L. (Eds.). Sistemas Multi-Agentes. Published by Papel Virtual Editora. ISBN 85-7493-155-1, July 2001.

CONFERENCE & WORKSHOP PAPERS

- James Andrews, Michael Benisch, Alberto Sardinha, Norman Sadeh. ***What Differentiates a Winning Agent: An Information Gain Based Analysis of TAC-SCM***. AAAI-07 Workshop on Trading Agent Design and Analysis, Vancouver, Canada, July 2007. (to appear)

- Alberto Sardinha, Jinghai Rao, Norman Sadeh. ***Enforcing Context-Sensitive Policies in Collaborative Business Environments***. First International Workshop on Security Technologies for Next Generation Collaborative Business Applications at ICDE'07, Istanbul, Turkey, April 2007.

- Michael Benisch, Alberto Sardinha, James Andrews, Norman Sadeh. ***CMieux: Adaptive Strategies for Competitive Supply Chains***. The Eighth International Conference on Electronic Commerce, Fredericton, New Brunswick, Canada, August 14-16, 2006.

- José Alberto R. P. Sardinha, Marco S. Molinaro, Patrick M. Paranhos, Pedro M. Cunha, Ruy L. Milidiú and Carlos J. P. Lucena. ***A Multi-Agent Architecture for a Dynamic Supply Chain Management***. The 19th International Florida AI Research Society Conference, Melbourne Beach, Florida, USA, May 11-13, 2006.

- Luciana Salles, Katia Rocha, Francisco Alcaraz, José Alberto R. P. Sardinha, José Paulo Teixeira. ***Real Estate Investments: Risk Management and Real Option***. 9th International Managerial Real Options Conference, Paris, France, June 22-23, 2005.

- José Alberto R. P. Sardinha, Ruy L. Milidiú, Patrick M. Paranhos, Pedro M. Cunha, Carlos J. P. Lucena. ***An Agent Based Architecture for Highly Competitive Electronic Markets***. The 18th International Florida AI Research Society Conference, Clearwater Beach, Florida, USA, May 16-18, 2005.

- Alessandro F. Garcia, Uirá Kulesza, José Alberto R. P. Sardinha, Ruy L. Milidiú, Carlos J. P. Lucena. ***The Learning Aspect Pattern***. The 11th Conference on Pattern Languages of Programs (PLoP2004), Allterton Park, Monticello, Illinois, USA, September 8 - 12, 2004.

- José Alberto R. P. Sardinha, Alessandro F. Garcia, Ruy L. Milidiú, Carlos J. P. Lucena. ***The Agent Learning Pattern***. Fourth Latin American Conference on Pattern Languages of Programming, SugarLoafPLoP'04, Fortaleza, Brazil, August 2004.

- Jose Alberto R. P. Sardinha, Alessandro F. Garcia, Carlos J. P. Lucena, Ruy L. Milidiú. ***On the Incorporation of Learning in Open Multi-Agent Systems: A Systematic Approach***. Sixth International Bi-Conference Workshop on Agent Oriented Information Systems(AOIS-2004) at CAiSE 2004, Riga, Latvia, Jun 2004.

- Jose Alberto R. P. Sardinha, Ruy L. Milidiú, Carlos J. P. Lucena, Patrick M. Paranhos. ***An OO Framework for building Intelligence and Learning properties in Software Agents***. Proceedings of the 2nd International Workshop on Software Engineering for Large-Scale Multi-Agent Systems (SELMAS 2003) at ICSE 2003, Portland, USA, May 2003.

- Carlos J. P. Lucena, José Alberto R. P. Sardinha, Alessandro F. Garcia, Jaelson Castro, Alexander Romanovsky, Paulo Alencar & Donald Cowan. ***Software Engineering for Large-Scale Multi-Agent Systems – SELMAS 2003***. Proceedings of the IEEE/ACM International Conference on Software Engineering (ICSE 2003), Portland, USA, May 2003.

- Ruy L. Milidiú, Carlos J. P. Lucena, José Alberto R. P. Sardinha. ***An object-oriented framework for creating offerings***. Workshop on Product Line Architectures for E-Commerce at 2001 International Conference on Internet Computing (IC'2001). Las Vegas, Nevada, USA - Volume 1. June 2001.

MAGAZINE ARTICLES

- Michael Benisch, Alberto Sardinha, James Andrews, Norman Sadeh. ***CMieux: Adaptive Strategies for Competitive Supply Chain Trading***. ACM SIGecom Exchanges (ISSN: 1551-9031), Vol. 6, No. 1, pp. 1–10, June 2006.

TECHNICAL REPORTS

- Alberto Sardinha, Michael Benisch, Norman Sadeh, Ramprasad Ravichandran, Vedran Podobnik, Mihai Stan. ***The 2007 Procurement Challenge: A Competition to Evaluate Mixed Procurement Strategies***. School of Computer Science, Carnegie Mellon University, Technical Report CMU-ISRI-07-123, November 2007.

- Alberto Sardinha, Michael Benisch, James Andrews, Norman Sadeh. ***The 2007 Supply Chain Trading Agent Competition - Procurement Challenge.*** School of Computer Science, Carnegie Mellon University, Technical Report CMU-ISRI-07-106, April 2007.
- Michael Benisch, Alberto Sardinha, James Andrews, Norman Sadeh. ***CMieux 2005: Design and Analysis of Carnegie Mellon Univeresity's Entry in the Supply Chain Trading Agent Competition.*** School of Computer Science, Carnegie Mellon University, Technical Report CMU-ISRI-06-104, April 2006.
- Jose Alberto R. P. Sardinha, Marco S. Molinaro, Patrick M. Paranhos, Pedro M. Cunha, Ruy L. Milidiú, Carlos J. P. Lucena. ***A Multi-Agent Architecture for a Dynamic Supply Chain Management.*** Technical Report, Computer Science Department, PUC-Rio, Brazil. PUC-RioInf.MCC36/05, November 2005.
- Carolina Felicíssimo, Jose Alberto R. P. Sardinha, Carlos J. P. Lucena. ***Sweetening Regulated Open Multi-Agent Systems with Support for Agents to Reason about Laws***. Technical Report, Computer Science Department, PUC-Rio, Brazil. PUC-RioInf.MCC32/05, November 2005.
- José Alberto R. P. Sardinha, Ricardo Choren, Viviane Torres, Ruy L. Milidiú, Carlos J. P. Lucena. ***A Combined Specification Language and Development Framework for Agent-based Application Engineering***. Technical Report, Computer Science Department, PUC-Rio, Brazil. PUC-RioInf.MCC05/05, February 2005.
- Jose Alberto R. P. Sardinha, Ruy L. Milidiú, Carlos J. P. Lucena, Patrick M. Paranhos, Pedro Cunha. ***An Agent Based Architecture for Highly Competitive Electronic Markets***. Technical Report, Computer Science Department, PUC-Rio, Brazil. PUC-RioInf.MCC37/04, October 2004.
- Jose Alberto R. P. Sardinha, Ruy L. Milidiú, Carlos J. P. Lucena, Patrick M. Paranhos. ***A Methodology for Building Trading Agents in Electronic Markets***. Technical Report, Computer Science Department, PUC-Rio, Brazil. PUC-RioInf.MCC36/04, October 2004.
- Jose Alberto R. P. Sardinha, Ricardo Choren, Ruy L. Milidiú, Carlos J. P. Lucena. ***Engineering Machine Learning Techniques into Multi-Agent Systems***. Technical Report, Computer Science Department, PUC-Rio, Brazil. PUC-RioInf.MCC12/04, May 2004.
- Jose Alberto R. P. Sardinha, Alessandro F. Garcia, Carlos J. P. Lucena, Ruy L. Milidiú. ***On the Incorporation of Learning in Open Multi-Agent Systems: A Systematic Approach***. Technical Report, Computer Science Department, PUC-Rio, Brazil. PUC-RioInf.MCC07/04, April 2004.
- Ruy L. Milidiú, Carlos J. P. Lucena, José Alberto R. P. Sardinha, Paula C. Ribeiro. ***An Object-Oriented Framework for Building Software Agents***. Technical Report, Computer Science Department, PUC-Rio, Brazil. PUC-RioInf.MCC06/02, April 2002.

POSTERS

- Michael Benisch, James Andrews, Alberto Sardinha, Norman Sadeh. ***CMieux: Carnegie Mellon Univeresity's Supply Chain Trading Agent***. Poster Session at Trading Agent Competition 2006, Fifth International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS'06), Hakodate, Japan, May 2006.
- Jose Alberto R. P. Sardinha, Patrick M. Paranhos, Pedro M. Cunha, Marco S. Molinaro, Helena Milidiú, Ruy L. Milidiú, Carlos J. P. Lucena. ***LearnAgents 2005 - A multi-agent system for the TAC Classic***. Poster Session at Trading Agent Competition 2005, Nineteenth International Joint Conference on Artificial Intelligence, Edinburgh, Scotland, August 2005.
- Jose Alberto R. P. Sardinha, Patrick M. Paranhos, Pedro M. Cunha, Marco S. Molinaro, Helena Milidiú, Ruy L. Milidiú, Carlos J. P. Lucena. ***LearnAgentsSCM - A multi-agent system for the TAC Supply Chain Management***. Poster Session at Trading Agent Competition 2005, Nineteenth International Joint Conference on Artificial Intelligence, Edinburgh, Scotland, August 2005.
- Jose Alberto R. P. Sardinha, Ruy L. Milidiú, Carlos J. P. Lucena, Patrick M. Paranhos, Pedro Cunha. ***LearnAgents - A multi-agent system for the TAC Classic***. Poster Session at AAMAS'2004 - Trading Agent Competition, New York, NY, July 2004.

MASTER'S THESIS

- José Alberto R. P. Sardinha. ***VGroups: Um Framework para Grupos Virtuais de Consumo***. Master's Thesis, Departamento de Informática, PUC-Rio, 2001.

DOCTORAL DISSERTATION

- José Alberto R. P. Sardinha***. MAS-School e ASYNC: Um Método e um Framework para Construção de Agentes Inteligentes***. Doctoral Dissertation, Departamento de Informática, PUC-Rio, 2005.