

# MAURICIO ALEJANDRO ARAYA LÓPEZ, Ph.D.

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## GENERAL INFORMATION

Birthday January 29th, 1983  
Nationality Chilean  
Passport Number 15.098.618-4

## LANGUAGES

Spanish Native  
English Advanced. Test of English for International Communication, ETS 2008. (930 of 990)  
French Intermediate

## DEGREES

2009 - 2013 PhD in Computer Science  
**Laboratoire LORIA / Université de Lorraine**, Nancy, France.  
2006 - 2008 Master of Science in Informatics Engineering  
**Universidad Técnica Federico Santa María**, Valparaíso, Chile.  
2001 - 2008 Informatics Engineering  
**Universidad Técnica Federico Santa María**, Valparaíso, Chile.

## EXPERIENCE

2014– **Full-time Researcher** at the ICHAA-CONICYT 79130008 Project, Departamento de Informática, Universidad Técnica Federico Santa María. *Strengthening Research and Teaching on Astroinformatics*.  
2014 **Part-Time Lecturer** at Departamento de Informática, Pontificia Universidad Católica de Valparaíso. *Operating Systems* lecture.  
2012–2013 **Part-Time Lecturer** at IUT-Charlemagne, Université de Lorraine, *Data Structures*, *Computer Architecture* and *Introduction to Databases* lectures.  
2008 **Part-Time Lecturer** at Departamento de Informática, Pontificia Universidad Católica de Valparaíso. *Computer Networks* lecture.  
2008-2009 **Part-Time Lecturer** at Departamento de Informática, Universidad Técnica Federico Santa María. *Programming Paradigms and Languages*, *Networking Workshop* and *Programming Workshop* lectures.  
2006-2009 **Researcher** at the ALMA-CONICYT 31060008 Project, Departamento de Informática, Universidad Técnica Federico Santa María.  
2002-2006 **Lecture Assistant** at Departamento de Informática, Universidad Técnica Federico Santa María.

## SELECTED PUBLICATIONS

- [1] Mauricio Araya-López, Olivier Buffet, and Vincent Thomas. Approximate belief-lookahead information gathering. *Journal of Artificial Intelligence Research*, 2015. [Conditional acceptance under major revisions][ISI IF=1.691].
- [2] Mauricio Araya-López, Mauricio Solar, and Jonathan Antognini. A survey on the virtual observatory. *New Astronomy*, 2015. [Accepted][ISI IF=1.244].
- [3] Mauricio Araya-López, Olivier Buffet, and Vincent Thomas. Near-optimal BRL using optimistic local transitions. In *Proceedings of the 29th International Conference on Machine Learning (ICML-12)*, volume 1, pages 97–104, 2012. [SCOPUS][Acceptance rate 27%][CORE=A\*].
- [4] Mauricio Araya-López, Vincent Thomas, Olivier Buffet, and François Charpillet. Une extension des pomdp avec des récompenses dépendant de l'état de croyance. In *Conférence Francophone d'Apprentissage 2011*, May 2011. [Best Paper Award].
- [5] Mauricio Araya-López, Olivier Buffet, Vincent Thomas, and François Charpillet. Active learning of MDP models. In *Lecture Notes in Artificial Intelligence (EWRL/ECML-11)*, volume 7188, pages 42–53. Springer, 2011. [SCOPUS][CORE=A].
- [6] Mauricio Araya-López, Olivier Buffet, Vincent Thomas, and François Charpillet. A POMDP extension with belief-dependent rewards. In *Advances in Neural Information Processing Systems 23 (NIPS-10)*, 2010. [SCOPUS][Acceptance rate 24%][CORE=A\*].
- [7] Mauricio Araya-López, Vincent Thomas, Olivier Buffet, and François Charpillet. A closer look at MOMDPs. In *Proceedings of the Twenty-Second IEEE International Conference on Tools with Artificial Intelligence (ICTAI-10)*, volume 2, pages 197–204, 2010. [SCOPUS][Acceptance rate 27.5%][CORE=B].
- [8] Mauricio Araya-López, Rodrigo J. Tobar, Jorge A. Avarias, and Horst H. von Brand. Towards a distributed control framework with real-time support. In *XXXVI Conferencia Latinoamericana de Informática*. CLEI, 2008. [CORE=C].

## GRANTS

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| 2009-2012 | PHD Scholarship to study at France, “Master 2 de Investigación y Doctorado” by the French Embassy and CONICYT. |
| 2007-2008 | Scientific Initiation Grant by the Graduate School of Universidad Técnica Federico Santa María.                |

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