

# Felipe Trevizan

## Curriculum Vitae

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📍 Australian National University  
Building 108, North Road  
Canberra, ACT 2601, Australia  
🏠 <http://felipe.trevizan.org>  
✉ [felipe.trevizan@anu.edu.au](mailto:felipe.trevizan@anu.edu.au)

## Education

- 2013 Ph.D. **Carnegie Mellon University** (Pittsburgh, USA)  
*Thesis:* Short-Sighted Probabilistic Planning  
*Supervisor:* Manuela Veloso
- 2010 M.Sc. **Carnegie Mellon University** (Pittsburgh, USA)  
*Thesis:* Learning Opponent's Strategies in the RoboCup  
*Supervisor:* Manuela Veloso
- 2006 M.Sc. **São Paulo University** (São Paulo, Brazil)  
*Thesis:* An Unified Model for Planning under Uncertainty  
*Supervisor:* Leliane Nunes de Barros
- 2004 B.Sc. **São Paulo University** (São Paulo, Brazil)  
*Thesis:* Cognitive Robotics: an Application of Planning with Incomplete Information  
*Supervisor:* Leliane Nunes de Barros

## Employment

Research School of Computer Science, Australian National University (Canberra, Australia)  
2018/May – *current* **Assistant Professor**  
2014/Jun – 2018/Apr **Adjunct Research Fellow**

Machine Learning Research Group, NICTA (now Data61/CSIRO) (Canberra, Australia)  
2017/Aug – 2018/Apr **Senior Research Scientist**  
2014/Jun – 2017/Aug **Research Scientist**

Google (USA)  
2011/May – 2011/Sep **Summer Intern** (Seattle, USA)  
2010/May – 2010/Aug **Summer Intern** (Pittsburgh, USA)

## Honours and Awards

- 2017 **Best Paper Award** at the 27th International Conference on Automated Planning and Scheduling (ICAPS).  
2016 **Best Paper Award** at the 26th International Conference on Automated Planning and Scheduling (ICAPS).  
2016 **Best Paper Award** from the Artificial Intelligence committee of the Transport Research Board (TRB).  
2006 **Best Paper Award** at the 10th Ibero-American Conference on Artificial Intelligence (IBERAMIA).

## Scholarships

- 2007/Sep – 2013/Aug Doctoral, **Carnegie Mellon University** (CMU).  
2006/Oct – 2007/Sep Doctoral, **Brazilian Coordination for the Improvement of Higher Level Personnel** (CAPES).  
2005/Feb – 2006/May M.Sc., **Brazilian National Council for Scientific and Technological Development** (CNPq).  
2003/Oct – 2004/Set Research Experience for Undergraduates, **São Paulo State Research Foundation** (FAPESP).

## Publications

### Peer-Reviewed Journals Papers

- Guilliard, I., Sanner, S., Trevizan, F. and Williams, B. (2016) A Non-homogeneous Time Mixed Integer LP Formulation for Traffic Signal Control. In *Transport Research Record (TRR): Journal of the Transport Research Board*, 128–138. (**Kikuchi-Karlaftis Best Paper Award**)
- Santos, F., Barros, L. N. and Trevizan, F. (2015) Reachability-based Model Reduction for Markov Decision Process. In *Journal of the Brazilian Computer Society*, 1265:1–5.

- Trevizan, F. and Veloso, M. (2014) Depth-based Short-sighted Stochastic Shortest Path Problems. In *Artificial Intelligence*, 216:179–205.
- Trevizan, F. and Barros, L. N. (2006) Robótica Cognitiva: programação baseada em lógica para controle de robôs. In *Controle & Automação*.
- Trevizan, F., Barros, L. N. and Correa da Silva, F. S. (2006) Designing Logic-based Robots. In *Inteligencia Artificial, Revista Iberoamericana de Inteligencia Artificial*, 10:11–22.

### Peer-Reviewed Conferences Papers

- Baumgartner, P., Thiébaux, S. and Trevizan, F. (2018) Heuristic Search Planning With Multi-Objective Probabilistic LTL Constraints. In *Proc. of 16th Int. Conf. on Principles of Knowledge Representation and Reasoning (KR)*.
- Toyer, S., Trevizan, F., Thiébaux, S. and Lexing, X. (2018) Action Schema Networks: Generalised Policies with Deep Learning. In *Proc. of 32nd AAAI Conference on Artificial Intelligence*.
- Trevizan, F., Thiébaux, S. and Haslum, P. (2018) Operator Counting Heuristics for Probabilistic Planning. In *Proc. of the 27th Int. Joint Conf. on AI (IJCAI)*.
- Trevizan, F., Thiébaux, S. and Haslum, P. (2017) Occupation Measure Heuristics for Probabilistic Planning. In *Proc. of 27th Int. Conf. on Automated Planning and Scheduling (ICAPS)*. (**Best Paper Award**)
- Trevizan, F., Teichteil-Königsbuch, F. and Thiébaux, S. (2017) Efficient Solutions for Stochastic Shortest Path Problems with Dead Ends. In *Proc. of 33rd Int. Conf. on Uncertainty in Artificial Intelligence (UAI)*.
- Baumgartner, P., Thiébaux, S. and Trevizan, F. (2017) Tableaux for Policy Synthesis for MDPs with PCTL\* Constraints. In *Proc. of 26th Int. Conf. on Automated Reasoning with Analytic Tableaux and Related Methods (TABLEAUX)*.
- Trevizan, F., Thiébaux, S., Santana, P. and Williams, B. (2017) I-dual: Solving Constrained SSPs via Heuristic Search in the Dual Space. In *Proc. of the 26th Int. Joint Conf. on AI (IJCAI)*.
- Trevizan, F., Thiébaux, S., Santana, P. and Williams, B. (2016) Heuristic Search in Dual Space for Constrained Stochastic Shortest Path Problems. In *Proc. of 26th Int. Conf. on Automated Planning and Scheduling (ICAPS)*. (**Best Paper Award**)
- Trevizan, F. and Veloso, M. (2013) Finding Objects through Stochastic Shortest Path Problems. In *Proc. of 12nd Int. Conf. on Autonomous Agents and Multiagent Systems (AAMAS)*.
- Trevizan, F. and Veloso, M. (2012) Trajectory-Based Short-Sighted Probabilistic Planning. In *In Advances in Neural Information Processing Systems (NIPS)*.
- Trevizan, F. and Veloso, M. (2012) Short-Sighted Stochastic Shortest Path Problems. In *Proc. of 22nd Int. Conf. on Automated Planning and Scheduling (ICAPS)*.
- Shirota Filho, R., Cozman, F. G., Trevizan, F., de Campos, C. P. and Barros, L. N. (2007) Multilinear and Integer Programming for Markov Decision Processes with Imprecise Probabilities. In *Proc. of the 5th Int. Symposium On Imprecise Probability: Theories And Applications*.
- Trevizan, F., Cozman, F. G. and Barros, L. N. (2007) Planning under Risk and Knightian Uncertainty. In *Proc. of the 20th Int. Joint Conf. on AI (IJCAI)*.
- Trevizan, F., Cozman, F. G. and Barros, L. N. (2006) Unifying Nondeterministic and Probabilistic Planning through Imprecise Markov Decision Processes. In *Proc. of the 10th Ibero-American Conf. on AI (IBERAMIA) and 18th Brazilian AI Symposium (SBIA)*. (**Best Paper Award**)
- Trevizan, F., Barros, L. N. and Correa da Silva, F. S. (2005) Low Cost Experiments in Cognitive Robotics for Planning in Hostile Environments with Incomplete Information. In *Proc. of the 11th Conf. of the Spanish Association for Artificial Intelligence (CAEPIA)*.
- Trevizan, F. and Barros, L. N. (2005) Robótica Cognitiva: uma aplicação de planejamento com informação incompleta. In *Proc. of the 7th Simpósio Brasileiro de Automação Inteligente (SBAI)*.

### Peer-Reviewed Workshop Papers

- Trevizan, F. and Veloso, M. (2010) Learning Opponent's Strategies in the RoboCup Small-Size League. In *Proc. of AAMAS'10 Workshop on Agents in Real-time and Dynamic Environments*.
- Trevizan, F., Cozman, F. G. and Barros, L. N. (2008) Mixed Probabilistic and Nondeterministic Factored Planning through Markov Decision Processes with Set-valued Transitions. In *Proc. of ICAPS'08 Workshop on A Reality Check for Planning and Scheduling Under Uncertainty*.

### Theses

- Trevizan, F. (2013) Short-Sighted Probabilistic Planning. **Ph.D. Thesis**. Machine Learning Department, School of Computer Science, Carnegie Mellon University. Pittsburgh, USA.

- Trevizan, F. (2010) Learning Opponent's Strategies in the RoboCup Small Size League. **M.Sc. Thesis.** Machine Learning Department, School of Computer Science, Carnegie Mellon University. Pittsburgh, USA.
- Trevizan, F. (2006) An Unified Model for Planning under Uncertainty. **M.Sc. Thesis.** Computer Science Department, Institute of Math and Statistics, São Paulo University, São Paulo, Brazil.
- Trevizan, F. (2004) Cognitive Robotics: an Application of Planning with Incomplete Information. **Diploma Thesis.** Computer Science Department, Institute of Math and Statistics, São Paulo University, São Paulo, Brazil.