Felipe Leno da Silva (Leno) *D.Sc. student at Escola Politécnica da USP*

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Summary

Leno is a computer scientist working to push the boundaries of knowledge in the area of Artificial Intelligence. His main interest lies in Machine Learning, particularly in Reinforcement Learning, Supervised Learning, Computer Vision, and Multiagent Systems. Since his graduation, he has been deeply involved in academic research activities.

Education

Escola Politécnica of the University of São Paulo, USP — São Paulo, Brazil
D.Sc. in Computer Engineering, ongoing (**FAPESP** scholar) — *03/2015 – present*
Transfer Learning for Multiagent Reinforcement Learning Systems - This research aims at improving Multiagent Reinforcement Learning Algorithms to allow knowledge generalization and reuse among similar but different tasks.
(Advisor: Prof. Dr. Anna Helena Reali Costa)

Escola Politécnica of the University of São Paulo, USP — São Paulo, Brazil
M.Sc. in Computer Engineering (**CNPq** scholar) — *02/2013 – 02/2015*
Automated Bee Species Identification through Wing Images - This research studied methods to allow an automated bee species identification through Computer Vision and Machine Learning techniques applied to bee wing images.
(Advisor: Prof. Dr. Anna Helena Reali Costa)

Pontifical Catholic University of São Paulo, PUC-SP — São Paulo, Brazil
B.S. in Computer Science (PROUNI scholar) — *02/2009 – 12/2012*

Selected Conference Publications

SILVA, F. L.; GLATT, R.; COSTA, A. H. R. *Simultaneously Learning and Advising in Multiagent Reinforcement Learning.* Int. Conf. on Autonomous Agents and Multiagent Systems (AAMAS), p. 1100–1108, 2017.

SILVA, F. L.; COSTA, A. H. R. *Automatic Object-Oriented Curriculum Generation for Reinforcement Learning .* 1st Workshop on Scaling-Up Reinforcement Learning (SURL) at ECML PKDD, 2017.

SILVA, F. L.; COSTA, A. H. R. *Towards Zero-Shot Autonomous Inter-Task Mapping through Object-Oriented Task Description.* 1st Workshop on Transfer in Reinforcement Learning (TiRL) at AAMAS-17, 2017.

SILVA, F. L.; GLATT, R.; COSTA, A. H. R. *Object-Oriented Reinforcement Learning in Cooperative Multiagent Domains.* Brazilian Conference on Intelligent System (BRACIS), p. 19-24, 2016.

GLATT, R.; **SILVA, F. L.**; COSTA, A. H. R. *Towards Knowledge Transfer in Deep Reinforcement Learning.* Brazilian Conference on Intelligent System (BRACIS), p. 91-96, 2016.

Selected Journal Publications

SILVA, F. L.; SELLA, M. L. G.; FRANCOY, T. M.; COSTA, A. H. R. *Evaluating classification and feature selection techniques for Honeybee subspecies identification using wing images.* Computers and Electronics in Agriculture, v. 114, p. 68-77 - 2015.

PERAFAN VILLOTA, J. C.; JACOMINI, R. S.; **SILVA, F. L.**; COSTA, A. H. R *Pairwise Registration in Indoor Environments using Adaptive Combination of 2D and 3D Cues* Image and Vision Computing, to appear, 2017.

JACOMINI, R. S.; MARTINS-JR, D. ; **SILVA, F. L.**; COSTA, A. H. R. *GeNICE: A Novel Framework for Gene Networks Inference by Clustering, Exhaustive Search and Multivariate Analysis.* Journal of Computational Biology, v. 24(8), p. 809-830, 2017.

SANTANA, F. S.; COSTA, A. H. R.; TRUZZI, F. S.; **SILVA, F. L.**; SANTOS, S. L.; FRANCOY, T. M.; SARAIVA, A. M. *A reference process for automating bee species identification based on wing images and digital image processing.* Ecological Informatics, v. 24, p. 248-260, 2014.

Additional Academic and Research Experience

Graduate Teaching Assistant
University of São Paulo, USP   *07/2013 – 12/2014*

My activities involved teaching classes and assignment preparation and correction. This work was done for the following subjects: (i) *Laboratory of the Foundations of Computing Engineering, and (ii) Foundations of Computer Engineering.*

Workshop Organization
1st Workshop on Transfer in Reinforcement Learning at AAMAS   *2017*

Local Organization.

1st Scaling-Up Reinforcement Learning Workshop at ECML PKDD   *2017*

Workshop Chair.

Conference Reviewer
10th International Conference on Agents and Artificial Intelligence (ICAART)   *2018*

1st Workshop on Transfer in Reinforcement Learning at AAMAS (TIRL)   *2017*

4th Brazilian Conference on Intelligent Systems (BRACIS)   *2017*

Scientific Journal Referee   2015 – present
Journal of Telecommunications System & Management
Journal of Computational Methods in Sciences and Engineering
International Journal of Engineering and Technology Innovation
IET Image Processing

Manuscript review and evaluation for scientific journals.

Undergraduate Research Co-mentor
University of São Paulo, USP   *2015 – present*

I have been providing mentorship for undergrad students researching on the topics *Automated Bee Species Identification* and *Multiagent Reinforcement Learning.*

Undergraduate Thesis Committee Member
Faculdade de Tecnologia Termomecânica, FTT   *2013 – 2014*

I have actuated as a Committee Member for several Undergraduate Thesis, mostly in projects related to Machine Learning.

Attended Conferences

AAMAS : International Conference on Autonomous Agents and Multiagent Systems	2017
AAAI : AAAI Conference on Artificial Intelligence	2017
ECML PKDD : European Conference on Machine Learning	2017
IJCAI : International Joint Conference on Artificial Intelligence	2016
BRACIS : Brazilian Conference on Intelligent Systems	2014,2016

Professional Experience

System Analist   São Paulo (Brazil)
TOTVS   *2010 – 2013*

System Analyst: Development and maintenance of ERP systems for small companies.

Awards and Honors

Best Paper Award
BRACIS   *2016*

1st place: *Object-Oriented Reinforcement Learning in Cooperative Multiagent Domains.*

Honarable Mention
AAAI   *2017*

Honorable mention as a Best Student Poster: *An Advising Framework for Multiagent Reinforcement Learning Systems*