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RESEARCH INTERESTS

Machine learning and natural language processing: semi-supervised learning, exploration versus exploitation, approximate bayesian inference in graphical models, learning within inference.

EDUCATION

- University of Massachusetts, Amherst. 2011–?. PhD Student. Advised by Andrew McCallum
- University of Campinas, Brazil (Unicamp). 2009–?. Masters and PhD student. Advised by Jacques Wainer.
- Federal University of Bahia, Brazil (UFBA). 2004–2008. B.S. in Computer Science.

HONORS AND AWARDS

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| New York Machine Learning Symposium | 2012 |
| Second prize for best spotlight presentation | |
| Student Research Conference (SEMEP UFBA) | 2008 |
| Outstanding work in the exact sciences | |

PUBLICATIONS

- David Belanger, Alexandre Passos, Sebastian Riedel, Andrew McCallum. *MAP Inference in Chains using Column Generation*. NIPS 2012.
- Alexandre Passos, Piyush Rai, Jacques Wainer, Hal Daumé III *Flexible Modeling of Latent Task Structures in Multitask Learning*. ICML 2012.
- Fabian Pedregosa, Gaël Varoquaux, Alexandre Gramfort, Vincent Michel, Bertrand Thirion, Olivier Grisel, Mathieu Blondel, Peter Prettenhofer, Ron Weiss, Vincent Dubourg, Jake Vanderplas, Alexandre Passos, David Cournapeau, Matthieu Brucher, Matthieu Perrot, Édouard Duchesnay. *Scikit-learn: Machine Learning in Python*. The Journal of Machine Learning Research.
- Alexandre Passos, Jurgen van Gael, Ulrich Paquet, Ralf Herbrich *A penny for your thoughts? The value of information in recommendation systems*. Presented as a talk in *NIPS 2011 Workshop on Bayesian Optimization, Experimental Design, and Bandits: Theory and Applications*, 2011.
- Alexandre Passos, Hanna Wallach, Andrew McCallum *Correlations and anticorrelations in LDA inference*
In *NIPS 2011 Workshop on Challenges in Learning Hierarchical Models: Transfer Learning and Optimization*, 2011
- Alexandre Passos, Jacques Wainer, and Aria Haghighi. *What do you know? A topic model approach to authority identification*. In *NIPS 2010 Workshop on Computational Social Science and the Wisdom of the Crowds*, 2010.
- Alexandre Passos and Jacques Wainer. *Wordnet-based metrics do not seem to help document clustering*. In *Proceedings of the II Workshop on Web and Text Intelligence*, 2009.
- Alexandre Passos and George Lima. *On the use of hard and soft reservation schemes in constant bandwidth servers*. In Sociedade Brasileira de Computação, editor, *Proc. 11th Brazilian Workshop on Real-Time and Embedded Systems (WTR 2009)*, pages 105–116. 11^o Brazilian Workshop on Real-Time and Embedded Systems (WTR 2009), 2009.
- Alexandre Passos, Marcos Sampaio, Pedro Kröger, and Givaldo de Cidra. *Harmonic analysis and computational musicology in rameau*. In *Anais do 12^o Simpósio Brasileiro de Computação Musical*, pages 207–210, Recife, 2009.
- Pedro Kröger, Alexandre Passos, Marcos Sampaio, and Givaldo de Cidra. *Rameau: A system for automatic harmonic analysis*. In *Proceedings of the 2008 International Computer Music Conference*, pages 273–281, 2008.
- Pedro Kröger, Alexandre Passos, Marcos Sampaio, Givaldo de Cidra, Nathanael de Souza Ourives, Emerson Soares dos Anjos, and Wallace Silva dos Santos. *Musicologia computacional aplicada à análise dos corais de bach*. In *Anais do XVIII Congresso da ANPPOM*, 2008.

SELECTED PRESENTATIONS

- *MAP Inference in Chains using Column Generation*. Spotlight and poster presentation, 7th Annual Machine Learning Symposium, New York Academy of Sciences. October 19th, 2012. Won a second best spotlight presentation award.
- *MAP Inference in Chains using Column Generation*. Poster presentation. 25th Neural Information Processing Systems. December 3rd, 2012.
- *MAP Inference in Chains using Column Generation*. Talk. UMass Machine Learning and Friends Lunch. September 13th, 2012.
- *Speeding up MAP with Column Generation and Block Regularization*. Poster presentation. ICML 2012 Workshop on Inferning: Interactions Between Inference and Learning. June 20, 2012.
- *Flexible Modeling of Latent Task Structures in Multitask Learning*. Talk. International Conference on Machine Learning. June 29, 2012.
- *Exploration and exploitation in recommendation systems*. Twitter Tech Talk. May 29th, 2012.
- *A penny for your thoughts: the value of information in recommendation systems*. Talk and poster presentation. NIPS 2011 Workshop on Bayesian Optimization, Experimental Design, and Bandits. December 16th, 2011.
- *Correlations and Anticorrelations in LDA Inference*. Poster presentation. NIPS 2011 Workshop on Challenges in Learning Hierarchical Models: Transfer Learning and Optimization. December 17th, 2011.
- *What do you know? A topic-model approach to authority identification*. Poster presentation. NIPS 2010 Workshop on Computational Social Science and the Wisdom of Crowds. December 10th, 2010.
- *Rameau: A system for automatic harmonic analysis*. Talk. 2012 International Computer Music Conference.

FOREIGN LANGUAGES

Cambridge FCE in English, obtained in 2002. 118 out of 120 points in the TOEFL IBT, taken in October 2010.

Native speaker of portuguese.

MISCELLANEA

- **Twitter:** @atpassos_ml
- **Blog:** <http://atpassos.me>