

# Silvio Amir

## Curriculum Vitae

INESC-ID Lisboa  
Instituto Superior Técnico da Universidade de Lisboa  
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👤 samiroid

## Research Topics

Social Media Analysis, Sentiment Analysis, Healthcare, Natural Language Processing, Machine Learning

## Education

2015

**Ph.D. Candidate**, *Computer Science and Engineering*,  
Instituto Superior Técnico da Universidade de Lisboa, Lisboa, Portugal.

Thesis Title (Provisional) *Agile Social Media Analysis with Neural Networks*

2013

**Ph.D. Student**, *Computer Science and Engineering*,  
Instituto Superior Técnico da Universidade de Lisboa, Lisboa, Portugal.

Advisor Prof. Doutor Mário Jorge Gaspar Silva

Co-Advisor Prof. Doutora Paula Cristina Quaresma da Fonseca Carvalho

Funding Ph.D. scholarship awarded by Fundação para Ciência e Tecnologia (FCT)

2009

**Master (MA)**, *Computer Science and Engineering*,  
Faculdade de Ciências da Universidade de Lisboa, Lisboa, Portugal.  
Specialization in Software Engineering

Thesis Title *Desenvolvimento e Reengenharia de Aplicações Web de Suporte ao Negócio e Integração com Sistemas de Business Intelligence*

(Development and Re-Engineering of Web Applications for Business Support and Integration with Business Intelligence Systems)

Advisor Prof. Doutor Luís Alberto dos Santos Antunes

🌐 <http://hdl.handle.net/10451/5939>

2007

**Licenciante (Lic)**, *Computer Science and Engineering*,  
Faculdade de Ciências da Universidade de Lisboa, Lisboa, Portugal.

## Professional Experience

### Research

2017

**Research Scientist**, *Qntfy*, Washington (DC), USA,  
🌐 <http://www.qntfy.com>.

Research Fellowship awarded by Northeastern University

2016

2017

**Research Assistant**, *CCIS - Machine Learning Lab*,  
Northeastern University, Boston (MA), USA.  
under the supervision of Prof. Byron Wallace

2016

**Visiting Researcher**, *School of Information*,  
University of Texas at Austin, Austin (TX), USA.  
under the supervision of Prof. Byron Wallace

2013

2016

**Research Assistant**, *Data Management and Information Retrieval Group (DMIR)*, INESC-ID Lisboa, Lisboa, Portugal.

**EXPRESS** *Expression and Recognition of Irony in Multicultural Social Media*  
- joint research project with the University of Texas at Austin, on automatic analysis of sarcasm and irony in text, funded by FCT Portugal

**POPSTAR** *Public Opinion and Sentiment Tracking, Analysis, and Research*  
- interdisciplinary R&D project on using conventional and social media to measure and track public opinion, funded by FCT Portugal

☞ <http://www.popstar.pt>

2011

2012

**Junior Research Assistant**, *Large-Scale Informatics Systems Lab (LASIGE)*, Faculdade de Ciências da Universidade de Lisboa, Lisboa, Portugal.

**REACTION** *Retrieval, Extraction and Aggregation Computing Technology for Integrating and Organizing News*

- interdisciplinary R&D project to create tools and methodologies to support advanced computational newsrooms, funded by the CoLab, UT Austin | Portugal

## Industry

2008

2010

**Software Engineer and IT Services Consultant**, *Truewind*, Lisboa, Portugal.

2007

2008

**Analyst and Software Developer**, *Deloitte Touche & Tohmatsu*, Lisboa, Portugal.

## Refereed Publications

### Conference

1. Silvio Amir, Glen Coppersmith, Paula Carvalho, Mário J Silva, and Byron C Wallace. "Quantifying Mental Health from Social Media with Neural User Embeddings". In: *Journal of Machine Learning Research, W&C Track* (2017)
2. Silvio Amir, Byron C Wallace, Hao Lyu, Paula Carvalho, and Silva Mário J. "Modelling context with user embeddings for sarcasm detection in social media". In: *Proceedings of the Conference on Natural Language Learning (CoNLL)* (2016)
3. Wang Ling, Chris Dyer, Alan W Black, Isabel Trancoso, Ramon Fernandez, Silvio Amir, Luis Marujo, and Tiago Luis. "Finding Function in Form: Compositional Character Models for Open Vocabulary Word Representation". In: *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing*. Lisbon, Portugal: Association for Computational Linguistics, Sept. 2015, pp. 1520–1530
4. Wang Ling, Yulia Tsvetkov, Silvio Amir, Ramon Fernandez, Chris Dyer, Alan W Black, Isabel Trancoso, and Chu-Cheng Lin. "Not All Contexts Are Created Equal: Better Word Representations with Variable Attention". In: *Proceedings of the 2015 Conference on Empirical Methods in Natural Language Processing*. Lisbon, Portugal: Association for Computational Linguistics, Sept. 2015, pp. 1367–1372
5. Ramón Astudillo, Silvio Amir, Wang Ling, Mario Silva, and Isabel Trancoso. "Learning Word Representations from Scarce and Noisy Data with Embedding Subspaces". In: *Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics and the 7th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*. Beijing, China: Association for Computational Linguistics, July 2015, pp. 1074–1084

## Journal

6. Silvio Moreira, David S Batista, Paula Carvalho, Francisco M Couto, and Mario J Silva. "Tracking politics with POWER". in: *Program* 47.2 (2013), pp. 120–135

## Workshop

7. Silvio Amir, Ramon F Astudillo, Wang Ling, Mário J Silva, Isabel Trancoso, and Rua Alves Redol. "INESC-ID at SemEval-2016 Task 4-A: Reducing the Problem of Out-of-Embedding Words". In: *Proceedings of SemEval (2016)*, pp. 238–242
8. Pedro Saleiro, Silvio. Amir, Mário J. Silva, and Carlos Soares. "Tracking Political Opinion on the Web". In: *2015 IEEE International Conference on Computer and Information Technology; Ubiquitous Computing and Communications; Dependable, Autonomic and Secure Computing; Pervasive Intelligence and Computing*. Oct. 2015
9. Silvio Amir, Wang Ling, Ramón Astudillo, Bruno Martins, Mario J. Silva, and Isabel Trancoso. "INESC-ID: A Regression Model for Large Scale Twitter Sentiment Lexicon Induction". In: *Proceedings of the 9th International Workshop on Semantic Evaluation (SemEval 2015)*. Denver, Colorado: Association for Computational Linguistics, June 2015, pp. 613–618
10. Ramón Astudillo, Silvio Amir, Wang Ling, Bruno Martins, Mario J. Silva, and Isabel Trancoso. "INESC-ID: Sentiment Analysis without Hand-Coded Features or Linguistic Resources using Embedding Subspaces". In: *Proceedings of the 9th International Workshop on Semantic Evaluation (SemEval 2015)*. Denver, Colorado: Association for Computational Linguistics, June 2015, pp. 652–656
11. Silvio Amir, Miguel B. Almeida, Bruno Martins, João Filgueiras, and Mário J. Silva. "TUGAS: Exploiting unlabelled data for Twitter sentiment analysis". In: *Proceedings of the 8th International Workshop on Semantic Evaluation (SemEval 2014)*. Dublin, Ireland: Association for Computational Linguistics and Dublin City University, Aug. 2014, pp. 673–677
12. Joao Filgueiras and Silvio Amir. "POPSTAR at replab 2013: Polarity for reputation classification". In: *CLEF 2013 Eval. Labs and Workshop Online Working Notes*. 2013
13. Silvio Moreira, João Filgueiras, Bruno Martins, Francisco Couto, and Mário J. Silva. "REACTION: A naive machine learning approach for sentiment classification". In: *Second Joint Conference on Lexical and Computational Semantics (\*SEM), Volume 2: Proceedings of the Seventh International Workshop on Semantic Evaluation (SemEval 2013)*. Atlanta, Georgia, USA: Association for Computational Linguistics, June 2013, pp. 490–494
14. Silvio Moreira, David Batista, Paula Carvalho, Francisco M Couto, and Mário J Silva. "POWER-Politics Ontology for Web Entity Retrieval". In: *Advanced Information Systems Engineering Workshops*. Springer. 2011, pp. 489–500

## Invited Talks and Seminars

2016

**Representation Learning for Agile Social Media Analysis**, SIGAI CNC, Northeastern University, Boston (MA), USA.

2015

**Towards Social Media Analysis for Low-Resource Languages**, *Priberam Machine Learning Lunch Seminars*, Instituto Superior Técnico, Lisboa, Portugal.

2014

**How to build a Twitter Sentiment Classifier: part II**, *Sapo Labs Talks*, Sapo Labs Lisboa, Lisboa, Portugal.

2014

**How to build a Twitter Sentiment Classifier**, *Sapo Labs Talks*, Sapo Labs Lisboa, Lisboa, Portugal.

2014

**Análise de Sentimento em Social Media**, *Workshop em Jornalismo Computacional*, Faculdade de Engenharia da Universidade do Porto, Porto, Portugal.

## Service

### Peer-Reviewing

Reviewer and secondary reviewer for ACL, NAACL, EACL, EMNLP, IJCAI and IJCNLP conferences, and for the Springer Machine Learning Journal

### Conference Organization

2017

**Volunteer**, *Machine Learning for Healthcare*, Northeastern University, Boston (MA), USA.

2015

**Volunteer**, *Conference on Empirical Methods in Natural Language Processing*, Instituto Superior Técnico, Universidade de Lisboa, Lisboa, Portugal.

### Summer Schools

2017

**Laboratory Monitor**, *Lisbon Machine Learning Summer School (LxMLS 2017)*, Instituto Superior Técnico, Lisboa, Portugal.

2015

**Laboratory Monitor**, *Lisbon Machine Learning Summer School (LxMLS 2015)*, Instituto Superior Técnico, Lisboa, Portugal.

2014

**Laboratory Monitor**, *Lisbon Machine Learning Summer School (LxMLS 2014)*, Instituto Superior Técnico, Lisboa, Portugal.

### Volunteer Work

2011

2012

**European Voluntary Service Program**, *Multikultura Egyesület*, Hungary.

Worked as a volunteer in a refugee camp in Bicske and in a day care center in a problematic neighborhood of Budapest, teaching English and basic computer skills.