Miguel Angel Rios Gaona

Contact Information

Institute for Logic,
Language and Computation
University of Amsterdam
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Personal Information

Birth: September 10, 1982.
Nationality: Mexico.
Gender: Male.
Marital status: Single.
Hobbies: Reading, tennis.

Research Interests

Bayesian Deep Learning, Machine Translation , Quality Estimation, Recognising Textual Entailment, Semantic Textual Similarity and Word Sense Disambiguation.

Education

University of Wolverhampton

PhD, October 2010 - November 2014.

- Dissertation: Methods for Measuring Semantic Similarity of Texts.
- Supervisors: Lucia Specia, Ruslan Mitkov and Alexander Gelbukh.

Centre for Computing Research, National Polytechnic Institute, Mexico

MSc (Computer Science), July 2008 - June 2010.

- Dissertation: Word Sense Disambiguation and Recognizing Textual Entailment with Statistical Methods.
- Supervisors: Alexander Gelbukh and Sivaji Bandyopadhyay.

Superior School of Computing, National Polytechnic Institute, Mexico

BEng (Computer Systems Engineering), August 2004 - June 2008.

- Dissertation: Word Sense Disambiguation Using Synonyms.
- Supervisors: Alexander Gelbukh and Macario Hernandez-Cruz.

Research Experience

11/2014 - 09/2016 **Research Fellow**
Advisor: Serge Sharoff,
University of Leeds.

11/2016 - present **Research Associate**
Advisor: Khalil Sima'an,
University of Amsterdam.

Teaching

Natural Language Processing 2	Coordinator (2019), main lecturer (2018), lecturer (2017). Master's of AI (UvA) `https://uva-slpl.github.io/nlp2/`
Thesis coaching	Lecturer (2019). Master's of AI (UvA)
Natural Language Processing 1	Guest lecturer (2018). Master's of AI (UvA)
Natural Language Models and Interfaces	Teaching assistant (2018) Bachelor's of AI (UvA)

Supervision

David Zomerdijk	MSc. (2018; UvA) Finding Frequently Asked Questions
Erik Stammes	BSc. (2018; UvA) Contextual Slot Filling for Task-Oriented Conversational Agents.
Alexander Geenen	MSc. candidate (UvA) Recognising Textual Entailment based on graph neural networks.
Tirza Soute	MSc. candidate (UvA) Recognising Textual Entailment based on Bayesian deep learning.
Thijs Brouwers	MSc. candidate (VU) Text Summarisation based on self-attention neural architectures.

Relevant Skills

Languages:	English, Spanish
Skills:	Python, C++, Scala, Perl, Java and Linux.

Publications

I. Calixto, M. Rios, W. Aziz. *Latent Visual Cues for Neural Machine Translation.* To appear in ACL 2019. Pre-print: aarXiv:1811.0035.

M. Rios, W. Aziz, and K. Sima'an. *A Generative Model of Lexical Paraphrase Representation.* CLIN 2019.

F. Curi, I. Calixto, and M. Rios. *Can we improve low-resource Neural Machine Translation with typological linguistic features?.* CLIN 2019.

M. Rios, W. Aziz, and K. Sima'an. *Deep Generative Model for Joint Alignment and Word Representation.* Proceedings of NAACL-HLT 2018.

J. Peter, H. Ney, O. Bojar, N. Pham, J. Niehues, A. Waibel, F. Burlot, F. Yvon, M. Pinnis, V. Sics, J. Bastings, M. Rios, W. Aziz, P. Williams, F. Blain, and L. Specia. *The QT21 Combined Machine Translation System for English to Latvian.* WMT'17. Copenhagen, Denmark.

M. Rios, S. Sharoff. *Large Scale Translation Quality Estimation.* Proceedings of the 1st Deep Machine Translation Workshop, 2015, Charles University in Prague, Faculty of Mathematics and Physics, Institute of Formal and Applied Linguistics, Praha, Czech Republic, ISBN 978-80-904571-7-1.

M. Rios, S. Sharoff. *Obtaining SMT dictionaries for related languages.* Proceedings of the Eighth Workshop on Building and Using Comparable Corpora (BUCC-2015), Association for Computational Linguistics, Beijing, China.

M. Rios and L. Specia. *Uow: Multi-task learning gaussian process for semantic textual similarity.* Proceedings of the 8th International Workshop on Semantic Evaluation (SemEval 2014), Dublin, Ireland.

M. Rios, L. Specia, A. Gelbukh and R. Mitkov. *Statistical Relational Learning to Recognise Textual Entailment.* Proceedings of the 15th International Conference on Intelligent Text Processing and Computational Linguistics, CICLing 2014, ISSN 0302-9743, Springer, 2014, pp. 330-339.

M. Rios, A. Gelbukh. *Recognizing Textual Entailment with Similarity Metrics*. Research in Computing Science, ISSN 1870-4069, Vol. 58, 2012, pp. 337-347.

M. Rios, A. Gelbukh. *Recognizing Textual Entailment with a Semantic Edit Distance Metric*. 2012 11th Mexican International Conference on Artificial Intelligence (MICAI), IEEE CS Press, 2012, ISBN 978-0-7695-4904-0, DOI 10.1109/MICAI.2012.29, pp. 15-20.

R. Mitkov, R. Evans, C. Orasan, I. Dornescu, M. Rios. *Coreference Resolution: To What Extent Does It Help NLP Applications?*. Proceedings of Text, Speech and Dialogue (TSD 2012). Lecture Notes in Computer Science Volume 7499, 2012, pp. 16-27.

M. Rios, W. Aziz, and L. Specia. *UOW: Semantically Informed Text Similarity*. Proceedings of the 6th International Workshop on Semantic Evaluation (SemEval 2012).

M. Rios, W. Aziz, and L. Specia. *TINE: A Metric to Assess MT Adequacy*. In Sixth Workshop on Statistical Machine Translation (WMT-2011), Edinburgh, UK.

W. Aziz, M. Rios, and L. Specia. *Shallow Semantic Trees for SMT*. In Sixth Workshop on Statistical Machine Translation (WMT-2011), Edinburgh, UK.

W. Aziz, M. Rios, and L. Specia. *Improving Chunk-based Semantic Role Labeling with Lexical Features*. In Recent Advances in Natural Language Processing (RANLP-2011), Hissar, Bulgaria.

M. Rios, A. Gelbukh, and S. Bandyopadhyay. *Recognizing Textual Entailment Using a Machine Learning Approach*. Proceedings of MICAI 2010, 9th Mexican International Conference on Artificial Intelligence.

M. Rios, A. Gelbukh, and S. Bandyopadhyay. *Recognizing Textual Entailment with Statistical Methods*. Proceedings of MCPR 2010, 2nd Mexican Conference on Pattern Recognition. Lecture Notes in Computer Science, Springer.

M. Rios, A. Gelbukh, and S. Bandyopadhyay. *Web-based Variant of the Lesk Approach to Word Sense Disambiguation*. Proceedings of MICAI 2009, 8th Mexican International Conference on Artificial Intelligence, ISBN 978-0-7695-3933-1, IEEE CS Press, 2009, pp. 103-107.

M. Rios, S. Godoy Calderon, and A. Gelbukh. *Word Sense Disambiguation with the KORA-Ω Algorithm*. Advances in Intelligent and Information Technologies. Special issue of Journal Research in Computing Science, ISSN 1870-4069, N 38, 2008, pp. 263-270.

References

Lucia Specia. Professor of Natural Language Processing at Imperial College London. Email: `l.specia@dcs.shef.ac.uk`

Alexander Gelbukh. Research Professor and Head of the Natural Language Laboratory at the Center for Computing Research (CIC) of the National Polytechnic Institute (IPN), Mexico. Email: `gelbukh@gelbukh.com`

Serge Sharoff. Associate Professor, Centre for Translation Studies, University of Leeds. Email: `s.sharoff@leeds.ac.uk`

Khalil Sima'an. Professor of Computational Linguistics and Vici Laureate at the Institute for Logic, Language and Computation, University of Amsterdam. Email: `k.simaan@uva.nl`