

# Ricardo Ferreira Guimarães

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## Education

<b>PhD in Computer Science</b> <i>Institute of Mathematics and Statistics - University of São Paulo</i> <b>Supervisor:</b> Professor Renata Wassermann <b>Thesis:</b> Modularity in Belief Change of Description Logic Bases	<b>São Paulo-SP, Brazil</b> 03/2015-01/2020
<b>BSc in Computer Science</b> <i>Institute of Mathematics and Statistics - University of São Paulo</i> <i>Honourable Mention</i> <b>Bachelor Dissertation/Project:</b> Extensions to the AML ontology aligner	<b>São Paulo-SP, Brazil</b> 2011–2014
<b>Apprentice Maintenance Electrician</b> <i>SENAI (National Service for Industrial Training) "Ary Torres"</i> <i>Honourable Mention</i>	<b>São Paulo-SP, Brazil</b> 2008–2009

## Experience

<b>Department of Informatics - University of Bergen</b> <i>Postdoctoral Research Fellow</i> Project: Lossy Preprocessing (LOPRE)	<b>Bergen, Norway</b> 12/2020-Present
<b>Faculty of Computer Science - Free University of Bozen-Bolzano</b> <i>Research Assistant</i> Project: PAC Learning with Ontologies	<b>Bolzano, Italy</b> 03/2020-11/2020
<b>School of Computer Science - University of Manchester</b> <i>Academic Visitor</i> Program: Research Internship Abroad. Sponsor: São Paulo Research Foundation (FAPESP)	<b>Manchester, UK</b> 04/2018-12/2018
<b>Institute of Mathematics and Statistics - University of São Paulo</b> <i>Teaching Assistant</i> Course: Introduction to Logic and Program Verification.	<b>São Paulo-SP, Brazil</b> 2017
<b>Institute of Mathematics and Statistics - University of São Paulo</b> <i>Teaching Assistant</i> Course: Introduction to Computing for Exact Sciences and Technology.	<b>São Paulo-SP, Brazil</b> 2016
<b>Institute of Mathematics and Statistics - University of São Paulo</b> <i>Network Administrator of the Rede Linux</i>	<b>São Paulo-SP, Brazil</b> 2013–2014

## Published and Presented Works

- Papers.....
- Jandson S. Ribeiro, Ricardo Guimarães, Ana Ozaki. *Revising Ontologies via Models: The  $\mathcal{ALC}$ -formula Case*. At the 34<sup>th</sup> International Workshop on Description Logics (DL 2021).

- Ricardo Guimarães, Ana Ozaki, Cosimo Persia, Baris Sertkaya. *Mining  $\mathcal{EL}^\perp$  Bases with Adaptable Role Depth*. At the 35<sup>th</sup> AAAI Conference (AAAI 2021).
- Vinícius Bitencourt Matos, Ricardo Guimarães, Yuri David Santos, Renata Wassermann. *Pseudo-contractions as Gentle Repairs*. In *Description Logic, Theory Combination, and All That* (Springer, 2019).
- Ricardo Guimarães, Uli Sattler and Renata Wassermann. *Ontology Stratification Methods: A Comparative Study*. At 3<sup>rd</sup> International Workshop on Ontology Modularity, Contextuality, and Evolution (WOMoCoE 2018).
- Ricardo Guimarães and Renata Wassermann. *Local Change in Ontologies with Atomic Decomposition*. At the *Debugging and Evaluation Workshop, part of the 3rd Joint Ontology Workshops (DEW@JOWO 2017)*.

#### Extended Abstracts.....

- Ricardo Guimarães and Renata Wassermann. *Modularity and Ontology Change*. In *Proceedings of the Doctoral and Masters Consortium of the 9th Seminar on Ontology Research in Brazil (ONTOBRAS 2017)*.
- Ricardo Guimarães and Renata Wassermann. *Atomic decomposition as relevance criteria in ontology revision*. At the 18th Brazilian Logic Conference (EBL 2017).

## Teaching

### Selected Topics in Artificial Intelligence (INF367)

Department of Informatics - University of Bergen

Topic: Ontologies and Knowledge Graphs: RDF, OWL, Description Logics, SPARQL, Statistical Relational Learning, Knowledge Graph Embeddings

**Lecturer**

08/2021–12/2021

## Grants

### Meltzer

43200.00 NOK, Travel Support

**Grant**

03/2022–03/2023

### FAPESP

76477.47 BRL, Research Internship Abroad

**Grant**

04/2018–01/2019

### FAPESP

91056.42 BRL

**Scholarship**

08/2017–01/2020

### CAPES

49800.00 BRL

**Scholarship**

03/2015–07/2017

## Computer skills

**Programming Languages:** Python, Java, C, Bash, Lua, Prolog, Rust

**Tools:** GNU/Linux, Git, SQL,  $\text{\LaTeX}$ , Protégé, RDF, OWL/OWL 2, SPARQL, Jupyter

**Skills:** Object-Oriented, Extreme Programming, MVC, Network and Concurrent Programming, Basic Linux System Administration, Office Software Suites

## Other Roles

**Supervision:** 2 Master students (ongoing) and 2 PhD students (ongoing)

**Examiner:** External Sensor (University of Oslo, Semantic Technologies, 2021), Internal Sensor (University of Bergen, Project in Informatics, 2021)

**PC Member:** KR 2022 (conference), DL 2022 (workshop)

**Reviewer:** Information and Computation Journal (2021), Artificial Intelligence Journal (2020)

**Organiser:** Artificial Intelligence in Bergen 2022 (research school)

## Languages

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**Portuguese:** Mother-tongue

**English:** IELTS Academic (02/2018): Overall 8.0 (CEFR C1)

Reading: 9.0 - Listening: 9.0 - Writing: 7.5 - Speaking: 7.0

## Research Interests

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|-------------------------|----------------------------|
| - Description Logics    | - Knowledge Graphs         |
| - Semantic Technologies | - Explainable AI           |
| - Ontology Repair       | - Representation Learning  |
| - Belief Change         | - Knowledge Representation |