Ricardo Ferreira Guimarães

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Education

PhD in Computer Science   **São Paulo-SP, Brazil**
Institute of Mathematics and Statistics - University of São Paulo   *03/2015-01/2020*
Supervisor: Professor Renata Wassermann
Thesis: Modularity in Belief Change of Description Logic Bases

BSc in Computer Science   **São Paulo-SP, Brazil**
Institute of Mathematics and Statistics - University of São Paulo   *2011–2014*
Honourable Mention
Bachelor Dissertation/Project: Extensions to the AML ontology aligner

Apprentice Maintenance Electrician   **São Paulo-SP, Brazil**
SENAI (National Service for Industrial Training) "Ary Torres"   *2008–2009*
Honourable Mention

Experience

Department of Informatics - University of Bergen   **Bergen, Norway**
Postdoctoral Research Fellow   *12/2020-Present*
Project: Lossy Preprocessing (LOPRE)

Faculty of Computer Science - Free University of Bozen-Bolzano   **Bolzano, Italy**
Research Assistant   *03/2020-11/2020*
Project: PAC Learning with Ontologies

School of Computer Science - University of Manchester   **Manchester, UK**
Academic Visitor   *04/2018-12/2018*
Program: Research Internship Abroad. Sponsor: São Paulo Research Foundation (FAPESP)

Institute of Mathematics and Statistics - University of São Paulo   **São Paulo-SP, Brazil**
Teaching Assistant   *2017*
Course: Introduction to Logic and Program Verification.

Institute of Mathematics and Statistics - University of São Paulo   **São Paulo-SP, Brazil**
Teaching Assistant   *2016*
Course: Introduction to Computing for Exact Sciences and Technology.

Institute of Mathematics and Statistics - University of São Paulo   **São Paulo-SP, Brazil**
Network Administrator of the Rede Linux   *2013–2014*

Papers and Publications

- Johanna Jøsang, Ricardo Guimarães, Ana Ozaki. *On the Effectiveness of Knowledge Graph Embeddings: a Rule Mining Approach*. At the 1st International Workshop on Knowledge Representation for Hybrid intelligence (KR4HI 2022).

- Jandson S. Ribeiro, Ricardo Guimarães, Ana Ozaki. *Revising Ontologies via Models: The $\mathcal{ALC}$-formula Case*. At the 34th 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 35th *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 3rd *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)*.

Teaching

Selected Topics in Artificial Intelligence (INF367)   **Lecturer**
Department of Informatics - University of Bergen   *08/2021–12/2021*
Topic: Ontologies and Knowledge Graphs: RDF, OWL, Description Logics, SPARQL, Statistical Relational Learning, Knowledge Graph Embeddings

Grants

Meltzer   **Grant**
43200.00 NOK, Travel Support   *03/2022–03/2023*

FAPESP   **Grant**
76477.47 BRL, Research Internship Abroad   *04/2018–01/2019*

FAPESP   **Scholarship**
91056.42 BRL   *08/2017–01/2020*

CAPES   **Scholarship**
49800.00 BRL   *03/2015–07/2017*

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, 2021-2022)

PC Member: KR 2022 (conference), DL 2022 (workshop), KR4HI 2022 (workshop)

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

Organiser: Artificial Intelligence in Bergen 2022 (research school)

Languages

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

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

Computer skills

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

Tools: GNU/Linux, Git, SQL, LATEX, Protégé, RDF, OWL/OWL 2, SPARQL, Jupyter

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