Short Curriculum Vitae

ANTÔNIO HORTA RIBEIRO

Current Position:
Postdoctoral Fellow, Uppsala University
Department of Information Technology,

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Academic Positions

Postdoctoral Fellow *Fev. 2021 - Now* - DEPARTMENT OF INFORMATION TECHNOLOGY, UPPSALA UNIVERSITY

Postdoctoral Associate *Mar. 2020 - Fev. 2021* - DEPARTMENT OF COMPUTER SCIENCE, UFMG

Education

Ph.D., Electrical Engineering *Aug. 2017 - Mar. 2020* - UNIVERSIDADE FEDERAL DE MINAS GERAIS (UFMG)

M.Sc., Electrical Engineering *Jan. 2016 - Jul. 2017* - UNIVERSIDADE FEDERAL DE MINAS GERAIS (UFMG)

B.S.E., Electrical Engineering *Jan. 2016 - Jul. 2017* - UNIVERSIDADE FEDERAL DE MINAS GERAIS (UFMG)

Awards

Benzelius award *2022* - ROYAL SOCIETY OF SCIENCES IN UPPSALA **Best Ph.D. Thesis in Engineering and Physical Sciences** *2021* - UNIVERSIDADE FEDERAL DE MINAS GERAIS **Best Ph.D. Thesis in Electrical Engineering** *2021* - UNIVERSIDADE FEDERAL DE MINAS GERAIS **Young Author Award (Honorable Mention)** *2021* - 19TH IFAC SYMPOSIUM ON SYSTEM IDENTIFICATION **Best Poster Award** *2019* - SCILIFELAB SCIENCE SUMMIT **Travel Award** *2018* - MACHINE LEARNING FOR HEALTH (ML4H) WORKSHOP AT NEURIPS

Scholarships

CAPES-PRINT *2020-2021* - CAPES **Split-site Ph.D. Scholarship** *2019* - CNPQ **Ph.D. Scholarship** *2018-2020* - CNPQ **M.S. Scholarship** *2016-2017* - CAPES

Supervision

Daniel Gedon *Aug. 2019 - Aug. 2024 (estimated)* - PH.D., CO-SUPERVISOR **Oscar Larsson** *Feb. 2022 - July 2022* - M.SC., SUPERVISOR **Theogene Habineza** *Jan. 2022 - June 2022* - M.SC., SUPERVISOR **Christie Courtnage** *Jan. 2022 - June 2022* - M.SC., SUBJECT REVIEWER **Meenal Pathak** *Feb. 2022 - Apr. 2022* - M.SC., SUBJECT REVIEWER

Teaching

Advanced Probabilistic Machine Learning *Fall - 2022* - COURSE RESPONSIBLE - MSC LEVEL, 125 STUDENTS **Artificial Intelligence and Machine Learning** *Spring - 2022* - TEACHING ASSISTENT - PHD LEVEL, 94 STUDENTS **Advanced Probabilistic Machine Learning** *Fall - 2021* - LECTURER - MSC LEVEL, 125 STUDENTS **The unreasonable effectiveness of overparameterized machine learning models** *Fall - 2021* - COURSE ORGANIZER - PHD LEVEL, 13 STUDENTS **Deep Learning** *Spring - 2021* - TEACHING ASSISTANT - PHD LEVEL, 54 STUDENTS **Engenharia de Controle (Control Engineering)** *2nd - 2016* - TEACHING ASSISTANT - BSC LEVEL, 50 STUDENTS **Controle Digital (Digital Control)** *2nd - 2016* - TEACHING ASSISTANT - BSC LEVEL, 40 STUDENTS

Bibliometrics

ORCID: 0000-0003-3632-8529; **DBLP**: 202/1699; **SCOPUS ID**: 57191699148 — Citations: 7651, h-index: 7, Documents: 23 (2022-09-12); **Google Scholar**: Antonio H. Ribeiro — Citations: 13217, h-index: 11, i10-index: 12 (2022-09-15).

Selected Publications

Emilly M. Lima, **Antônio H. Ribeiro**, Gabriela MM Paixão, Manoel Horta Ribeiro, Marcelo M. Pinto Filho, Paulo R. Gomes, Derick M. Oliveira, Ester C. Sabino, Bruce B. Duncan, Luana Giatti, Sandhi M. Barreto, Wagner Meira, Thomas B. Schön, and Antonio Luiz P. Ribeiro. "Deep Neural Network Estimated Electrocardiographic-Age as a Mortality Predictor". In: *Nature Communications* 12 (2021). DOI: 10.1038/s41467-021-25351-7.

Antônio H. Ribeiro, Manoel Horta Ribeiro, Gabriela M. M. Paixão, Derick M. Oliveira, Paulo R. Gomes, Jéssica A. Canazart, Milton P. S. Ferreira, Carl R. Andersson, Peter W. Macfarlane, Wagner Meira Jr., Thomas B. Schön, and Antonio Luiz P. Ribeiro. "Automatic Diagnosis of the 12-Lead ECG Using a Deep Neural Network". In: *Nature Communications* 11.1 (2020), p. 1760. DOI: 10.1038/s41467-020-15432-4. arXiv: 1904.01949.

Antônio H. Ribeiro, Koen Tiels, Luis A. Aguirre, and Thomas B. Schön. "Beyond Exploding and Vanishing Gradients: Attractors and Smoothness in the Analysis of Recurrent Neural Network Training". In: *Proceedings of the 23rd International Conference on Artificial Intelligence and Statistics (AISTATS), PMLR*. Vol. 108. 2020, pp. 2370–2380. arXiv: 1906.08482.

Antônio H. Ribeiro, Koen Tiels, Jack Umenberger, Thomas B. Schön, and Luis A. Aguirre. "On the Smoothness of Nonlinear System Identification". In: *Automatica* 121 (Nov. 2020), p. 109158. DOI: 10.1016/j.automatica.2020.109158. arXiv: 1905.00820.

Antônio H. Ribeiro and Luis A. Aguirre. ""Parallel Training Considered Harmful?": Comparing Series-Parallel and Parallel Feedforward Network Training". In: *Neurocomputing* 316 (Nov. 2018), pp. 222–231. ISSN: 0925-2312. DOI: 10.1016/j.neucom.2018.07.071.