César Pedrosa Soares

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Professional Experience

Psychometrician/Data Analyst

March/2022 - Currently

Center for Public Policy and Evaluation of Education, Brazil (remote work)

- Mining and analyzing data
- Conducting psychometric analyzes (Classical Test Theory/Item Response Theory)
- Conducting Natural Language Processing (NLP)
- · Public policy analysis and impact assessment
- Preparation of technical reports

Psychometrician/Data Analyst

2018 - 2022

Research group, University of São Paulo, Brazil

- Mining and analyzing data
 - Conducting psychometric analyzes (Classical Test Theory/Item Response Theory)
 - Conducting Natural Language Processing (NLP)
 - · Public policy analysis and impact assessment
 - Conducting spatial analyzes
 - Preparation of technical reports

Expert Advisor 2018

United Nations Educational, Scientific and Cultural Organization (UNESCO), Brazil

- Mining and analyzing data
- Preparation of technical reports

Formal Education

Ph.D. in Global Health and Sustainability

2018 - 2022

University of São Paulo, Brazil

Title: Financial Compensation Policy in the Contemporary World: limits and possibilities in the search for hybrid territories

Master's in Public Policy 2016 – 2018

Federal University of Rio Grande do Sul, Brazil

Title: Public Policies and Basic Health Care: impact evaluation

Bachelor's in Psychology 2010 – 2015

University Center of Brasília, Brazil

Title: Proposal of a psychometric instrument to evaluate the implementation of Psychosocial Care Centers

Volunteer work

Climate Reality Leader volunteer

2020 - Currently

The Climate Reality Project, USA (remote work)

- Mining and analyzing data
- Preparation of technical reports

Volunteer psychologist 2019

Red Cross of São Paulo, Brazil

Psychosocial care

Play Volunteer 2014

Red Cross War Memorial Children's Hospital, South Africa

Psychosocial care

Complementary Training

Integrated courses program: Natural Language Processing

2020

DeepLearning.AI/Coursera (Online Course)

- Natural Language Processing with Classification and Vector Spaces
- Natural Language Processing with Probabilistic Models
- Natural Language Processing with Sequence Models
- Natural Language Processing with Attention Models

Integrated courses program: Deep Learning

2020

DeepLearning.AI/Coursera (Online Course)

- Neural Networks and Deep Learning
- Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models

Foundations of Data Science

2020

London University/Coursera (Online Course)

K-Means Clustering in Python

Brazilian Delegation

2020

International School 2020, BRICS (Online Course)

- Mining and analyzing data
- Preparation of technical reports
- Sustainable development

Research internship

2019 - 2020

University of Münster, Germany

- Mining and analyzing data
- Preparation of technical reports
- Sustainable development

Philosophy Course

2013 -2019

University of Brasília/Federal University of São Paulo, Brazil

Selected Skills

Data analysis programs:

- SPSS (advanced)
- STATA (advanced)
- R (advanced)
- Python (advanced)
- ArcGIS/QGIS (advanced)
- NVivo (advanced)

Statistical analysis:

- Artificial Intelligence: clustering algorithms and Deep Learning for Image Processing and applied to Natural Language Processing (NLP)
- Psychometric techniques (Classical Test Theory and Item Response Theory)
- Methodology difference in differences and propensity score matching: applied to the impact assessment of public policies
- Spatial regression

Office package:

- Excel (advanced)
- Word (advanced)
- PowerPoint (advanced)

Language:

- Portuguese (Native proficiency)
- English (Fluent)
- Spanish (Reading and listening comprehension)
- French (Reading and listening comprehension)
- German (Reading comprehension)

Honors and Awards

Special Prize 2020

Towards a Brighter Future in the BRICS Young Scientists Competition

Title: BRICS and Climate Governance: a proposed psychometric instrument to assess progress in addressing socio-economic and environmental inequalities

1st place 2020

Challenge – Fight against COVID-19, Free School of Artificial Intelligence

Scientific Initiation Award and Honorable Mention

2015

21st Congress of Scientific Initiation of the University of Brasilia/12th Congress of Scientific Initiation of the Federal District of Brazil

Bibliographical Production

Articles in Scientific Journals

- **1.** SOARES, C. P.; VASCONCELLOS, M. P. C Proposal of a socio-environmental vulnerability scale of municipalities that receive financial compensation Brazil. Revista Dados, 2022, (being published Preprint link access below).
- **2.** SOARES, C. P.; VASCONCELLOS, M. P. C. The use of financial compensation in Maricá-RJ: an analysis of its limits and possibilities to deal with local socio-environmental aspects. Revista Brasileira de Estudos Urbanos e Regionais, 2022, (being published).
- **3.** SOARES, C. P.; VASCONCELLOS, M. P. C. Perception of risks around oil exploration and the use of financial compensation in Maricá-RJ. Revista Sociologias, 2022, (being published).
- **4.** SOARES, C. P.; VASCONCELLOS, M. P. C. Financial compensation and social and environmental damages: an analysis of the waterscapes and the hydrosocial territories of the Balbina hydroelectric power plant. Revista Ambiente & Sociedade, 2022, (being published).
- **5.** SOARES, C. P.; RAMOS, M. An evaluation of PMAQ-AB effects on hospitalization for conditions susceptible to Primary Care. Saúde Debate, v.44(16), 2020.

Link: https://www.scielo.br/j/sdeb/a/DnLDYLbBQhznRMsh5NQpNCt/?lang=en

6. SOARES, C. P.; QUEIROGA, F. Mental Health Devices and Public Policies: proposal of an instrument to evaluate the implementation of the Psychosocial Care Centers. Revista Meta: Avaliação, [S.I.], v. 11, n. 32, p. 438 - 467, ago. 2019. (Text in Portuguese)

Link: https://revistas.cesgranrio.org.br/index.php/metaavaliacao/article/view/1938

Articles in Newspapers/Magazines

- **1.** SOARES, C. P.; VASCONCELLOS, M. P. C. Compensation instruments and the socio-environmental impacts of the energy transition in contemporary times. Jornal da USP/Universidade de São Paulo, Artigos, 29 Nov. 2022. (Text in Portuguese) Link: https://jornal.usp.br/artigos/instrumentos-de-compensacao-e-os-impactos-socioambientais-da-transicao-energetica-na-contemporaneidade/
- 2. RIBEIRO, D. G; SOARES, C. P.; BACCHIEGGA, F.; VASCONCELLOS, M. P. C. São Paulo Elections: the unsustainable silence around the environmental issue. Jornal da USP/Universidade de São Paulo, Artigos, 16 Dez. 2020. (Text in Portuguese)

 Link: https://jornal.usp.br/artigos/eleicoes-de-sao-paulo-o-insustentavel-silencio-ao-redor-da-questao-ambiental/
- **3.** CARBONE, A. S.; VASCONCELLOS, M. P. C.; COUTINHO, SMV; SOARES, C. P.; RIBEIRO, D. G. Revisiting concept and principles of territorial planning in the Brazilian reality. Jornal da USP/Universidade de São Paulo, Artigos, 07 Ago. 2019. (Text in Portuguese) Link: https://jornal.usp.br/artigos/revisitando-conceito-e-principios-de-ordenamento-territorial-na-realidade-brasileira/

Book/eBook

1. SOARES, C. P. et al. Why climate justice? Climate justice working group. The Climate Reality Project Brazil, 2022. (Text in Portuguese)

Link: https://materiais.brazilclimatechange.com/e-book-para-que-justica-climatica

Preprints

- **1.** SOARES, C. P.; VASCONCELLOS, M. P. Proposal of a socio-environmental vulnerability scale of municipalities that receive financial compensation Brazil. SocArXiv, 2022. Link: https://osf.io/preprints/socarxiv/jg4a8
- **2.** SOARES, L. P.; SOARES, C. P. Automatic Detection of COVID-19 Cases on X-ray images Using Convolutional Neural Networks. arXiv preprint arXiv:2007.05494, 2020.

Link: https://arxiv.org/abs/2007.05494

Technical Reports

1. SOARES, C. P. et al. Impact evaluation of the federal Brazilian public policy "Tempo de Aprender". CAEd and Ministry of Education of Brazil, Dec., 2022. (Text in Portuguese)

Link: http://alfabetizacao.mec.gov.br/images/pdf/avaliacao de impacto tempo de aprender.pdf

Complete papers published in conference proceedings (Last one)

- SOARES, C. P.; VASCONCELLOS, M. P. C. A look at public compensation policies through a political ecology. In: 44º ANPOCS Encontro Anual, 2020.

Summary published in proceedings of conferences (Last one)

- SOARES, C.P.; STEINHÄUSER, C.; BUTTSCHARDT, T. K. Kūmara, Maís, and Cassava: socio-environmental inequalities and the rural transformation in New Zealand, Argentina, and Brazil, 2021, Croatia. The 28th Colloquium of the IGU-CSRS, Croatia, 2021.