

JOÃO PEDRO BAZZO VIEIRA

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C.V. last updated in April 2022

EDUCATION

M.Sc. in Environmental Engineering 📅 2020

Federal University of Parana

Title: "Spatiotemporal vehicle emissions inventory model: A case study in Curitiba-PR" [\[Link\]](#) *[In portuguese]*

Advisor: Prof. Marcelo Risso Errera Co-Advisor: Luiz Carlos Daemme

B.Sc. in Environmental Engineering 📅 2016

Federal University of Parana

Title: "Flow rates regionalization using RBF Neural Artificial Networks" [\[Link\]](#) *[In portuguese]*

Advisor: Prof. Ricardo Carvalho de Almeida

Exchange Program in Environmental Engineering 📅 2014

University of Waterloo

Fellowship Science Without Borders Grant

EXPERIENCE

Research Assistant

Institute for Applied Economic Research (IPEA)

📅 Sept 2019 – Current

📍 Brasília, Brazil

- International comparison of urban buses emissions based on GTFS data *[In progress]*;
- Development of R packages to process GTFS in a high spatiotemporal resolution (gtfs2gps package) and to estimates tailpipe emissions from public transportation (gtfs2emis package) *[In progress]*;
- Contribution to the project "Access to Opportunity", which aims to calculate people's access to jobs, health, and education services by different transport modes for Brazil's largest cities;
- Study on the impact of COVID-19 in the air travel demand and emissions in Brazil; Trends and inequalities of urban mobility in Brazil.

Research Coordinator

Cicloiguaçu Cyclist Association

📅 Jun 2016 – Jun 2019

📍 Curitiba, Brazil

- NGO aims to increase and improve bicycle use as a mode of transportation in Curitiba
- Coordination of Curitiba's cyclist profile 2017, an initiative of Metropolitan Observatory UFRJ; Transporte Ativo and LABMOB
- Participation in vehicle counts projects, seminars about bicycle in the urban environment, spatial data analysis on cyclist injuries and deaths, with the partnership with local universities

Intern

Envex Consulting

📅 Fev 2015 – Mai 2016

📍 Curitiba, Brazil

- Air quality, noise pollution, hydrology, and environmental impact assessment projects
- Development of R scripts to process and visualize data on air quality and noise monitoring projects

Research intern

University of Waterloo | Climatology Lab

📅 Set – Dec 2014

📍 Waterloo, Canada

- Research in a project entitled "The study of the relationship between ocean temperature and jet streams displacement in scenarios of climate change", with the supervision of Prof. Christopher Fletcher;
 - Programming using R and Linux (Bash Shell), as part of the Science Without Borders project grant.
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Intern

Public Prosecutors Office

📅 Nov 2011 – Ago 2013

📍 Curitiba, Brazil

- Assistance on process related to municipal solid waste management, atmospheric emissions, environment licensing, and water resources
 - Development of report on composting and municipal solid waste management, in the light of 12.305/10 law
 - Technical analysis on Environment Impact Studies, Solid waste management plans, and other projects related to environmental management of cities and industries
 - Inspection of industrial and environmental damaged areas
 - Studies involving environmental law
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Junior Enterprise

Ciclus Consulting – Federal University of Parana

📅 Mar 2010 - Mar 2013

📍 Curitiba, Brazil

- Greenhouse gas inventory project;
 - Entrepreneurship and project management training;
 - Supervision of project consultants responsible for: i) Meet the project deadline and budget; ii) Follow methodology for project management.
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PUBLICATIONS

Peer Reviewed Papers

- Vieira, J. P., Vieira Braga, C. K., Pereira, R. H. M. (2022). The impact of COVID-19 on air passenger demand and CO2 emissions in Brazil. *Energy Policy*, 164, 112906. [[Link](#)]
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Preprints

- R. H. M. Pereira, P. R. Andrade, e J. P. B. Vieira, "Exploring the time geography of public transport networks with the gtfs2gps package". *SocArXiv*, 2022. doi: 10.31235/osf.io/qydr6. [[Link](#)]
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Book Chapters, Working papers and Reports

- Pereira, H.M.R., Warwar L., Parga J.,Vieira J.P.B., Braga C.K., Herszenhut D. and Saraiva M. (2021). TD 2673: Trends and inequalities of urban mobility in Brazil I: the use of public and individual transport. [[Link](#)][*In portuguese*]
 - Miranda, A.C. and Vieira J.P.B.(2020).The use of bicycles in the context of urban mobility. p.335 In: *Urban mobility: a multidisciplinary approach*. Ed. by Cristina Araújo Lima. Curitiba: UFPR. ISBN: 978-65-86233-02-5 [*In portuguese*]
 - Belloto, J.C. A., Nakamori, S. and Vieira, J.P.B. (2020). Public institutions and traffic sources: practices to encourage sustainable mobility at UFPR and CELEPAR. In: *Brazilian public management: inovacion and network sustainability*. Ed. by Villac, T. v. 1, p. 203-221 [*In portuguese*]
 - Moreira, H.J.; Vieira, J.P.B.; Dittert, L.F.; Miranda, A.C.M.; Reck,Y.B.. Temporary infrastructure for active mobility: Cycle mobility solutions to adapt the streets in the fight against the pandemic. UCB & Cicloiguaçu. Curitiba, 2020. [[Link](#)][*In portuguese*]
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Congress Articles

- Vieira, J.P.B, Errera M.R., and Daemme L.C. (2019). Air pollutants modeling using bottom-up vehicular emissions inventory. At *25th ABCM International Congress of Mechanical Engineering*. [[Link](#)]
- Vieira, J.P.B., and Almeida, R.C. (2016). Flow regionalization using Neural Artificial Networks RBF. *1st Symposium of Numerical Methods in Engineering* [*In portuguese*]

- Gasparovic, C. L. M.; Ostroski, A. ; Vieira, J. P. B. ; Errera, M. R. . Elementary Constructal Design of a carbon capture systems based on carbonation over fly ashes.. In: Constructal Law Second Law Conference 2019 CLC 2019, 2019, Porto Alegre. Proceedings of Constructal Law Second Law Conference - CLC - 2019. Porto Alegre: Unisinos Porto (Brazil), 2019. v. 1. p. 184-187
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R packages

- gtfs2gps: Converting GTFS data to GPS format. Zenodo [[Link](#)]. [*Autor*]
 - vein: Vehicular Emissions Inventories. Version 0.9.4. [[Link](#)]. [*Contributor*]
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AWARDS

- 2021 "Enjoy Science UFPR" award due to master thesis excellence

GRANTS

- 2013-2014 Exchange program at University of Waterloo (Canada), Science Without Border program
- 2017-2019 CAPES Studentship for Master Degree at Federal University of Parana (UFPR)