

Carolina Coimbra Vieira

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EDUCATION

- **Max Planck Institute for Demographic Research** **MPIDR**
Ph.D. 2020–present
International Max Planck Research School for Population, Health and Data Science (IMPRS-PHDS)
Research topic: Population dynamics in association with interests expressed in digital data
- **Federal University of Minas Gerais** **UFMG**
M.Sc. Computer Science – GPA: 96/100 2018–2020
Thesis topic: A computational methodology to measure the cultural identity of countries.
- **Federal University of Minas Gerais** **UFMG**
Bachelor of Information System – GPA: 4.9/5.0 2014–2017
Thesis topic: Generating heterogeneous music playlists.

EXPERIENCE

- **Lecturer** 2023–2023
Summer Academy Neubeuern
Summer Academy Neubeuern organized by Studienstiftung des deutschen Volkes.
"How Social Media are Shaping our World - Individual and Societal Consequences of Social Media Use"
- **Lecturer** 2023–2023
Spring Academy Roggenburg
Spring Academy Roggenburg organized by Studienstiftung des deutschen Volkes.
"Diversity from multiple perspectives - How we (can) observe cultural diversity in the context of migration"
- **Ph.D. student** 2020–present
Laboratory of Digital and Computational Demography, MPIDR
Research on population dynamics in association with interests expressed in digital data.
- **Teaching Assistant (Deep Learning)** 2021–2021
Computer Science Department, Federal University of Minas Gerais
- **Teaching Assistant (Machine Learning)** 2020–2020
Computer Science Department, Federal University of Minas Gerais
- **Researcher** 2018–2020
WISEMAP Laboratory, Federal University of Minas Gerais
Research on topic modeling and LDA applied to song lyrics.
Research on complex networks applied to *fake news* dissemination on *WhatsApp*.
- **Visiting researcher** 2019–2019
Laboratory of Digital and Computational Demography, MPIDR
Research about cultural aspects using social media data. This work includes the creation of a new methodology to evaluate the distance between countries in terms of cultural aspects collected from Facebook Ads.

- **Teaching Assistant (Deep Learning)** **2019–2019**
○ *Computer Science Department, Federal University of Minas Gerais*
- **Tutor (Data Science)** **2019–2019**
○ *Computer Science Department, Federal University of Minas Gerais*
- **Research Assistant** **2016–2017**
○ *WISEMAP Laboratory, Federal University of Minas Gerais*
Research about generating heterogeneous music playlists, including the creation of a new algorithm, STRAW (Steered Random Walker), that create playlists based on the similarity of songs represented by a graph.
- **Research Assistant** **2015–2016**
○ *ICEX, Federal University of Minas Gerais*
Research project with the Minister of Science and Technology, between 1992 and 1999. The aim of this project is to model and predict Brazilian social phenomena like the illiteracy rate and the homicide rate. In this project, I worked with a mathematical model to model events of interest and predict its course during the years. This project was very important for my development because was my first experience in a research area and I could practice a lot of mathematical concepts and work with one of the most important people in the field of science in Brazil.

AWARDS

- **Achievement – IDDP fellowship** **2022**
○ *Institute for Data, Democracy & Politics (IDDP) at the George Washington University*
- **Young Demographers Best Presentation Award** **2022**
○ *Charles University*
- **SICSS Grant** **2021**
○ *Summer Institute in Computational Social Sciences (SICSS)*
- **CSDE Lightning Talks & Poster Session Best Presentation Award** **2021**
○ *University of Washington*
- **1st place in the Best Student Award** **2018**
○ *Federal University of Minas Gerais*
- **3rd place in the Competition of Code** **2017**
○ *Federal University of Minas Gerais*
- **Honorable Mention** **2017**
○ *Federal University of Minas Gerais*
Honorable Mention for project presented in the Competition of Data Visualization.
Work available on: <http://carolcoimbra.github.io/>.
- **NAACL Scholarship for the JSALT Summer School** **2017**
○ *Carnegie Mellon University (CMU)*
NAACL Scholarship for the JSALT Summer School on Speech and Language Technology at CMU.

SKILLS

- Python, R, C;
- Text-Processing Commands (POSIX);
- Data science (Data mining, Data visualization and Machine Learning);
- Portuguese (native), English (intermediate), Spanish (basic).

OTHER ACTIVITIES

- **Participated – Summer Institute in Computational Social Sciences (SICSS)** 2021
 - *Princeton University (online)*
- **Participated – Course: Population Health** 2020
 - *Max Planck Institute for Demographic Research*
- **Participated – Course: Topics in Digital and Computational Demography** 2020
 - *Max Planck Institute for Demographic Research*
- **Participated – Course: Demographic Methods** 2020
 - *Max Planck Institute for Demographic Research*
- **Participated – Pre-doctoral Research School - online Summer School** 2020
 - *Max Planck Institute for Software Systems*
- **Participated – Data visualization – the art/skill cocktail - online course** 2020
 - *Max Planck Institute for Demographic Research*
- **Participated – JSALT Summer School on Speech and Language Technology** 2017
 - *Carnegie Mellon University*

SELECTED TALKS

- "Edits on Wikipedia in response to big migration events"
 - Annual Conference of the British Society for Population Studies 2023 (BSPS '23)
 - International Conference on Computational Social Science 2023 (IC2S2 '23)
 - Annual Meeting - Population Association of America 2023 (PAA '23)
- "Contrasting global gender gaps in STEM using Facebook data and offline indicators"
 - International Conference on Computational Social Science 2023 (IC2S2 '23)
 - XX ISA World Congress of Sociology 2023 (ISA '23)
 - Annual Meeting - Population Association of America 2023 (PAA '23)
 - Annual International Conference of Young Demographers 2023
 - Giornate di Studio sulla Popolazione (PopDays 2023)
- "Evaluating digital polarization in multi-party systems: evidence from the German Bundestag".
 - International Conference on Computational Social Science 2022 (IC2S2 '22).
- "Desaparecidos: characterizing the population of missing children using Twitter".
 - The Web Science Conference 2022 (WebSci '22).
- "The value of culture for predicting migration: evidence from Facebook data".
 - Seminario sobre Gestión y Generación de Datos Sociodemográficos 2023
 - XX ISA World Congress of Sociology 2023 (ISA '23)
 - Giornate di Studio sulla Popolazione (PopDays 2023)
 - Alpine Population Conference (ALP-POP 2023)
 - National Meeting of Population Studies 2022
 - Workshop on Migration and mobility research in the digital era (MIMODE) at Conference on Complex Systems (CCS '22)

- Portuguese Conference of Demography 2022 (APD '22)
 - Annual Conference of the British Society for Population Studies 2022 (BSPS '22)
 - International Conference on Migration and Mobilities 2022 (iMigMob '22)
 - International Conference on Computational Social Science 2022 (IC2S2 '22)
- o "Cultural similarities predict migration over and above shared location, shared language, and shared history".
 - European Population Conference 2022 (EPC '22)
 - Annual Meeting - Population Association of America 2022 (PAA '22)
 - Annual International Conference of Young Demographers 2022
 - o "The interplay of migration and cultural similarity between countries: Evidence from Facebook data on food and drink interest".
 - XXIX International Population Conference (IPC '21)
 - o "The Role of Migration in Shaping Cultural Proximity across Countries: Evidence from Facebook Data on National Cuisines".
 - New data for the new challenges of population and society 2021
 - International Conference on Computational Social Science 2021 (IC2S2 '21)
 - Annual Meeting - Population Association of America 2021 (PAA '21)
 - o "Using Facebook Ads Data to Assess Gender Balance in STEM: Evidence from Brazil".
 - Workshop Data Science for Social Good - The Web Conference 2021 (WWW '21)
 - o "Assessing Cultural Distance between Countries using Facebook Data: The Case of Food as a Cultural Marker and the Role of Migration".
 - CSDE Winter 2021 Lightning Talk & Poster Session 2021
 - o "Using Facebook Data to Measure Cultural Distance between Countries: the Case of Brazilian Cuisine".
 - The Web Conference 2020 (WWW '20)
 - o "Using Facebook Data to Expand Multidimensional Measures of Distance between Countries".
 - Annual Meeting - Population Association of America 2020 (PAA '20)

SELECTED PUBLICATIONS

- o **Vieira, Carolina C.**; Lohmann, Sophie; Zagheni, Emilio. "The Value of Cultural Similarity for Predicting Migration: Evidence from Food and Drink Interests in Digital Trace Data." *Population and Development Review* (2024).
- o **Vieira, Carolina C.**; Fatehkia, M.; Garimella, K.; Weber, I.; Zagheni, E.. "Using Facebook and LinkedIn data to study international mobility". In: Salah, A. A.; Eren Korkmaz, E.; Bircan, T. (Eds.): *Data science for migration and mobility*. Oxford: Oxford University Press (2022).
- o **Vieira, Carolina C.**; Alburez-Gutierrez, Diego; Nepomuceno, Marilia R.; Theile, Tom. "Desa-

- parecidxs: characterizing the population of missing children using Twitter." In Proceedings of the 14th ACM Web Science Conference 2022 (WebSci '22).
- o Chin, Amber; **Vieira, Carolina C.**; Kim, Jisu. "Evaluating Digital Polarization in Multi-Party Systems: Evidence from the German Bundestag." In Proceedings of the 14th ACM Web Science Conference 2022 (WebSci '22).
 - o **Vieira, Carolina C.**; Lohmann, Sophie; Zagheni, Emilio; de Melo, Pedro O. V.; Benevenuto, Fabrício; Ribeiro, Filipe N. "The interplay of migration and cultural similarity between countries: Evidence from Facebook data on food and drink interests." PLoS ONE 17(2): e0262947. (2022).
 - o **Vieira, Carolina C.**; Vasconcelos, Marisa. "Using Facebook Ads Data to Assess Gender Balance in STEM: Evidence from Brazil." In Companion Proceedings of The Web Conference 2021 (WWW '21).
 - o **Vieira, Carolina C.**; Ribeiro, Filipe N.; de Melo, Pedro O. V.; Benevenuto, Fabrício; Zagheni, Emilio. "Using Facebook Data to Measure Cultural Distance between Countries: the Case of Brazilian Cuisine." In Proceedings of The Web Conference 2020 (WWW '20).
 - o de Almeida, Marcos A.; **Vieira, Carolina C.**; de Melo, Pedro O. V.; Assunção, Renato M. "Random Playlists Smoothly Commuting Between Styles." ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM) 15, no. 4 (2019): 1-20. 2019.
 - o Melo, Philipe de Freitas; **Vieira, Carolina C.**; Garimella, Kiran; de Melo, Pedro O. V.; Benevenuto, Fabrício. "Can WhatsApp Counter Misinformation by Limiting Message Forwarding?". In International Conference on Complex Networks and Their Applications, 372-384. 2019.