

# Carolina Coimbra Vieira

Konrad-Zuse-Str., 1 – 18057 Rostock, Germany

📞 (+49) 176 4347 6649 • ✉ coimbravieira@demogr.mpg.de  
🌐 <https://carolcoimbra.github.io/>

## EDUCATION

---

- **Max Planck Institute for Demographic Research** **MPIDR**  
○ *Ph.D. in Computer Science* **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

---

- **Seminar Chair** **2024–present**  
○ *Seminar Chair in the Department of Digital and Computational Demography*  
Max Planck Institute for Demographic Research.
- **Lecturer** **2024–2024**  
○ *Migration and Society Course*  
University of Rostock and Max Planck Institute for Demographic Research.
- **Lecturer** **2024–2024**  
○ *African Population Conference 2024*  
Workshop on "Exploring Migration Patterns using Digital Trace Data"
- **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*

Last update: October 23, 2024

- 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 (1992-1999). This project focused on modeling and predicting Brazilian social phenomena such as illiteracy rates and homicide rates.

## AWARDS

---

- Achievement – RESPECT fellowship** **2023**  
 ○ *Georgia Institute of Technology*
- Young Demographers Best Presentation Award** **2022**  
 ○ *Charles University*
- Achievement – IDDP fellowship Grant \$12,000** **2022**  
 ○ *Institute for Data, Democracy & Politics (IDDP) at the George Washington University*
- SICSS Grant \$3,500** **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*
- Honorable Mention** **2017**  
 ○ *Federal University of Minas Gerais*  
 Honorable Mention for the 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.

*Last update: October 23, 2024*

## SKILLS

---

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

## OTHER ACTIVITIES

---

- **Participated – Data Donation Symposium** 2024  
○ *University of Amsterdam*
- **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*
- **Participated – Summer School in Computer Science** 2015–2017  
○ *Federal University of Minas Gerais*

## SELECTED TALKS

---

- "Digital demography in migration studies: Applications and challenges for Latin America". Live Webinar ABEP 2024.
- "Using Wikipedia data to monitor big migration events"
  - International Conference on Computational Social Science 2024 (IC2S2 '24)
  - European Population Conference 2024 (EPC '24)
  - African Population Conference 2024 (APC '24)
  - Annual Meeting - Population Association of America 2024 (PAA '24)
- "Exploring migration patterns using digital trace data". African Population Conference 2024 (APC '24)
- "The value of cultural similarity for predicting migration: evidence from food and drink interests in digital trace data". Seminario sobre Gestión y Generación de Datos Sociodemográficos 2023

*Last update: October 23, 2024*

- "The value of cultural similarity for predicting migration: evidence from food and drink preferences in Facebook data"
  - XX ISA World Congress of Sociology 2023 (ISA '23)
  - Giornate di Studio sulla Popolazione (PopDays 2023)
  - Alpine Population Conference (ALP-POP 2023)
- "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".
  - 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)
- "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
- "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)

*Last update: October 23, 2024*

- o "The interplay of migration and cultural similarity between countries: evidence from Facebook data on food and drink interests". XXIX International Population Conference (IPC '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 Zhao, Y.; Paul, R.; Reid, S.; **Vieira, Carolina C.**; Wolfe, C.; Zhang, Y.; Chunara, R. "Constructing Social Vulnerability Indexes with Increased Data and Machine Learning Highlight the Importance of Wealth Across Global Contexts." *Social Indicators Research* (2024).
- 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. "Desaparecidos: 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)*.

*Last update: October 23, 2024*

- 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.
- o **Vieira, Carolina C.**; Loures, Túlio C.; de Melo, Pedro O. V.; Assunção, Renato M. "The Times They Are A-Changin' (or not): song lyrics analysis over the years". Proceedings of the 25th Brazillian Symposium on Multimedia and the Web, 237-244. 2019.
- o **Vieira, Carolina C.**; Melo, Philipe de Freitas; de Melo, Pedro O. V.; Benevenuto, Fabrício. "Viralização de Informação em Redes de Grupos como o *Whatsapp*". Proceedings of the 37th Brazillian Symposium on Computer Networks and Distributed Systems. 2019.
- o de Almeida, Marcos A.; **Vieira, Carolina C.**; de Melo, Pedro O. V.; Assunção, Renato M. "The Fast and Winding Roads that Lead to The Doors: Generating Heterogeneous Music Playlists". Proceedings of the 23rd Brazillian Symposium on Multimedia and the Web, 269-276. 2017.
- o de Almeida, Marcos A.; **Vieira, Carolina C.**; de Melo, Pedro O. V.; Assunção, Renato M. "ROPE and STRAW: Automatic Music Playlist Generators". Anais Estendidos do XXIII Simpósio Brasileiro de Sistemas Multimídia e Web. 2017.