

# JORGE E. PATIÑO

Geoscientist and postdoctoral researcher, lecturer and consultant.  
Expert in GIS, remote sensing, and geospatial data analysis.  
I work with geospatial and satellite imagery to help solve environmental and urban issues.



## EDUCATION

- 2016 • **Universitat Politècnica de València**  
Ph.D. in Geodesy, Cartography and Geographic Information Systems  
Valencia, Spain
- 2004 • **Universitat Politècnica de València**  
D.E.A. in Geodesy, Cartography and Geographic Information Systems  
Valencia, España
- 2002 • **Universidad EAFIT**  
M.Sc. in Earth Sciences  
Medellin, Colombia
- 1998 • **Universidad Nacional de Colombia**  
Geological Engineer  
Medellin, Colombia

## RECENT RESEARCH EXPERIENCE

- 2022 | 2018 • **Senior Researcher**  
RiSE Group, EAFIT University  
Medellín, Colombia  
• PEAK Urban project: Building capacity for the future city in developing countries. Subproject: Urban form and its impact on sustainable development.
- 2022 | 2021 • **Senior Researcher, Geospatial data leader.**  
RiSE Group, EAFIT University  
Medellín, Colombia  
• World Bank - Universidad EAFIT, Support to the LAC Flagship on Spatial Development. Intraurban inequality in Mexican cities. Census data analysis and static maps, plots, and interactive maps production to support the analysis of intraurban socioeconomic inequalities in the Mexican metropolitan areas using census data from 2010 and 2020.

## CONTACT INFO

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## SKILLS

Experienced in spatial data analysis, remote sensing, and GIS.

Skilled in R, QGIS, ArcGIS, ENVI, OpenGeoda, Python, OTB, and SNAP.

Fast learner, very organized, and good team leader and coworker.

*This resume was made with the R package **pagedown**.*

*Last updated on 2022-05-25.*

- 2020 ● **Senior Researcher, Geospatial data leader.**  
 RiSE Group, EAFIT University 📍 Medellín, Colombia  
 • *World Bank - Universidad EAFIT, Support to the Territorial and Urban Development Agenda in LAC. Intraurban inequality in Colombia.* Census data analysis and static maps, plots, and interactive maps production to support the analysis of intraurban socioeconomic inequalities in the Colombian urban areas using census data from 2018. (Public repository: [https://github.com/Rise\\_group/desigualdades\\_intraurbanas\\_Colombia](https://github.com/Rise_group/desigualdades_intraurbanas_Colombia))
- 2017 ● **Researcher, Geospatial data leader.**  
 RiSE Group, EAFIT University 📍 Medellín, Colombia  
 • *World Bank LCR Flagship Report on Cities and Productivity (P158837).* Remote sensing and spatial data processing for building a spatial database of urban extents of Latin America and the Caribbean for econometric analysis. Support to the analysis of urban form and productivity, and metropolitan coordination and institutional fragmentation of Latin American cities.



## RECENT TEACHING EXPERIENCE

- present | 2017 ● **Quantitative analysis, applied urban analysis**  
 Master in Urban and Environmental Processes, EAFIT University. 📍 Medellín, Colombia
- present | 2017 ● **Introduction to GIS and spatial data manipulation**  
 Master in Urban and Environmental Processes, EAFIT University. 📍 Medellín, Colombia
- 2018 ● **Geocodification with open software tools.**  
 Tailored course at the Logistics Department of Cemex Colombia. 📍 Bogotá, Colombia
- 2018 ● **Techniques for georeferenced data analysis**  
 Master of Economics, EAFIT University. 📍 Medellín, Colombia



## RECENT PROFESSIONAL EXPERIENCE

- present | 2022 ● **Independent contractor**  
 OECD - Sahel and West Africa Club Secretariat. Project: *Sustainability and resiliency of African cities urbanisation.* (Remote work) 📍 Paris, France
- 2022 | 2018 ● **Project leader**  
 RiSE Group, EAFIT University, Project: *Urban Form and its impact on sustainable development.* (part of PEAK Urban project: Building capacity for the future city in developing countries, funded by the Global Challenges Research Fund from United Kingdom). 📍 Medellín, Colombia
- 2022 | 2021 ● **Project leader**  
 Servicios Geológicos Integrales (SGI), Project: *Mapping of Corredor-Montecristo-Yarirí wetland swamp complex and Main Ecological Structure of the Puerto Wilches municipality (Santander).* (Client: Ecopetrol). 📍 Bogotá, Colombia
- 2021 ● **Geomorphologic component leader**  
 Servicios Geológicos Integrales (SGI), Project: *Definition of a methodology for wetland mapping at 1:25.000 scale.* (Clients: Ecopetrol and Ministerio de Medio Ambiente). 📍 Bogotá, Colombia
- 2020 ● **Senior geospatial consultant**  
 Innovación, EAFIT University, Project: *Spatial analysis for innovative strategy design for promoting the tourism industry safe and sustainable growing in Antioquia.* (Client: Gobernación de Antioquia). 📍 Medellín, Colombia

2020

● **Senior geospatial consultant, data leader**

Innovación, EAFIT University, Project: *Study for Empresas Públicas de Medellín E.S.P. (Medellin utilities company): Spatio-temporal forecast of water-supply and sewerage.*

📍 Medellín, Colombia



## RECENT PUBLICATIONS

Hong, A., Martinez, L., **Patino, J. E.**, Duque, J. C., & Rahimi, K. (2021). Neighbourhood green space and health disparities in the global South : Evidence from Cali , Colombia. *Health and Place*, 72(September), 102690. <https://doi.org/10.1016/j.healthplace.2021.102690>

**Patino, J. E.**, Hong, A., Duque, J. C., Rahimi, K., Zapata, S., & Lopera, V. M. (2021). Built environment and mortality risk from cardiovascular disease and diabetes in Medellín, Colombia: An ecological study. *Landscape and Urban Planning*, 213(April), 104–126. <https://doi.org/10.1016/j.landurbplan.2021.104126>

Duque, J. C., Lozano-Gracia, N., **Patino, J. E.**, & Restrepo, P. (2021). Urban form and productivity: What shapes are Latin-American cities? *Environment and Planning B: Urban Analytics and City Science*, 106(11), 239980832199930. <https://doi.org/10.1177/2399808321999309>

Prieto Curiel, R., **Patino, J. E.**, Duque, J. C., & O'Clery, N. (2021). The heartbeat of the city. *PLoS ONE*, 16(2), e0246714. <https://doi.org/10.1371/journal.pone.0246714>

**Patino, J. E.** (2020). Analyzing long-term availability of urban green space by socioeconomic status in Medellín, Colombia, using open data and tools. In 2020 IEEE Latin American GRSS & ISPRS Remote Sensing Conference (LAGIRS) (pp. 87–92). Santiago, Chile: IEEE. <https://doi.org/10.1109/LAGIRS48042.2020.9165672>

Duque, J. C., Lozano-Gracia, N., **Patino, J. E.**, & Cadavid, P. R. (2020). Institutional fragmentation and metropolitan coordination in Latin American cities: Are there links with city productivity? *Regional Science Policy & Practice*, 1–33. <https://doi.org/10.1111/rsp3.12314>

Gómez, J. A., **Patino, J. E.**, Duque, J. C., & Passos, S. (2020). Spatiotemporal Modeling of Urban Growth Using Machine Learning. *Remote Sensing*, 12(1), 109. <https://doi.org/10.3390/rs12010109>

Duque, J. C., Lozano-Gracia, N., **Patino, J. E.**, Restrepo, P., & Velasquez, W. A. (2019). Spatiotemporal Dynamics of Urban Growth in Latin American Cities: An Analysis Using Nighttime Lights Imagery. *Landscape and Urban Planning*, 191(August), 103640. <https://doi.org/10.1596/1813-9450-8702>



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PhD GIS & remote sensing



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