Jorge Ruiz Cabrejos

Barcelona, Spain | jruizcabrejos@gmail.com | jruizcabrejos.com

Health data scientist with 10 years of experience in statistical analysis, data management, and the application of information technologies in epidemiological research and public health projects of different scales and scopes. Proficient in R, Python, QGis, and wide range of data collection, manipulation, and other emergent analytical tools. Currently working on environmental health and climate change attribution. Previous work covered topics on maternal health, infectious diseases and other health-related issues.

Education

Oct.2024 – Present
Barcelona, Spain.

Universitat Pompeu Fabra (UPF)
(PhD.) Doctorate / <u>Biomedicine</u>

Sept.2020 – Dec.2022
London, UK.

London School of Hygiene and Tropical Medicine (LSHTM)
(Msc.) Master of Science / <u>Health Data Science</u>

Mar.2014 – Dec.2018
Lima, Perú.

Universidad Peruana Cayetano Heredia (UPCH)
(Bch.) Bachellor / <u>Health Administration</u>

Professional Experience

May.2024 – Present
Barcelona, Spain.

Barcelona Institute for Global Health (ISGlobal)
Climate Change Adaptation group
- <u>Predoctoral Researcher</u>
  o Epidemiological modeling and climate change attribution of temperature-related mortality.
- <u>Software Engineer</u>
  o Implementation of harmonization protocols, data integration, and development of database procedures.

Apr.2020 – Apr.2024
Lima, Perú.

Instituto de Medicina Tropical Alexander von Humboldt (IMTVAH)
Laboratorio de Innovación en Salud [Health Innovation Laboratory]
- <u>Data Scientist</u>
  o Developed the data collection plan and prepared statistical analysis for the DSMB on clinical trials.
  o Designed statistical models for health-related data as part of the Freedom From Infection (FFI) project, funded by the Bill & Melinda Gates Foundation.
- <u>Research Assistant</u>
  o Contributed towards the scientific production of the group by publishing in high-impact journals and producing descriptive statistics, multivariable analysis and other assessments with machine learning or bayesian methods.
  o Produced training material, standardized documentation, dashboards and other forms of automatized reporting for common data procedures.

Jan.2017 – Mar.2020
Lima, Perú.

Universidad Peruana Cayetano Heredia (UPCH)
Laboratorio de Malaria [Malaria Laboratory]
- <u>Research Assistant</u>
  o Responsible for the data management, collection, processing, and analysis required by the different projects part of the International Center of Excellence for Research in Malaria - Amazonia (ICEMR), project funded by the National Institutes of Health (NIH).
  o Coordinated the use, transfer, and governance policies of datasets generated.
  o Conducted statistical analysis on administrative and scientific data produced by research projects on leptospirosis surveillance, malaria spatial epidemiology and human mobility.
  o Data wrangling, data mining, and aerial imagery collection and procedures.

Aug.2016 – Apr.2018[1]
Lima, Perú.

Proyecto: Mamás del Rio
- [1]<u>Data Coordinator</u>
  o Implemented ODK mobile systems and provided training to community health workers in the use of electronic devices to enhance maternal and child health.

Sep.2017 – Dec.2017 *Lima, Perú.*	**Ministerio de Salud** *Dirección de Monitoreo y Evaluación de la Gestión en Salud*

- <u>Data Consultant</u>
  - o Implementation of the data collection and analysis of the project "Termómetro Salud", a health facility survey to collect KPIs and other health center specific data.

Aug.2016 – Nov.2016 *Lima, Perú.*	**Ministerio de Salud** *Despacho Viceministerial de Salud Pública*

- <u>Data Consultant</u>
  - o Development of an application and surveyor training for the data collection system of the National Campaign for Vaccination Against Yellow Fever of the Ministry of Health, held in the region of Junín, Perú.

Academic activities

- Conference presentations

(Oct.2024 New Orleans, USA.) **American Society of Tropical Medicine and Hygiene (ASTMH)**
<u>Oral Presentation:</u> Advancing Malaria Elimination Assessment in Loreto, Peru through the Freedom from Infection Model

- Teaching roles

Colegio de La Inmaculada, Jesuitas
<u>Lecturer</u> *(Lima, Perú)*
"Computer Science"
3rd of secondary (Mar.2019 – Dec.2019)
"Game design and Development"
3rd of secondary (Mar.2017 – Dec.2017)
"Civic Education"
4th of secondary (Mar.2015 – Dec.2015)

Universidad Peruana Cayetano Heredia
<u>Assistant professor</u> *(Lima, Perú)*
"Introduction to data management and visualization in R"
(Jun.2018 – Aug.2018)
"Basics of statistics applied with R".
(Jan.2018 – Mar.2018)
"Introduction to statistics with R"
(Jul.2017 – Sep.2017)
"Society, Culture and Health Organizations"
(Aug.2016 – Dec.2016)

- Workshops and talks

Apr.2019	<u>Assistant</u> – Bioinformatics Resource for Invertebrate Vectors of Human Pathogens (VectorBase) Hands-on Workshop, Iquitos, Perú
Feb.2019	<u>Lecturer</u> – "Advanced tools with R" XVI Teorical pratice course of molecular epidemiology applied to infectious diseases – Postgraduate school - Universidad Peruana Cayetano Heredia (UPCH)
Nov.2018	<u>Moderator</u> - Colloquium "Role and challenges of the health administrator in public management" - Facultad de Salud Pública y Administración, Universidad Peruana Cayetano Heredia (UPCH)
Feb.2017	<u>Speaker</u> - I Meeting of Telehealth and Mobile Health for the care of people
Oct.2016	<u>Assistant</u> – Seminar "Tools for decisión-making in the direction and management of health services" - Universidad de Piura

Publications

Ballester, J., Royé, D., Janoš, T., Paniello-Castillo, B., Chen, Z.-y., Thompson, A., **Ruiz-Cabrejos, J**., Quijal-Zamorano, M., Tobias, A., Shartova, N. & Antó, J. Rethinking early warning systems for the health effects of extreme heat. (2026). **Nature Health**. [in press]

Romanello M, Walawender M, Hsu SC, Moskeland A, Palmeiro-Silva Y, Scamman D, Smallcombe JW, **Ruiz-Cabrejos J**, et al. The 2025 Report of the Lancet Countdown on Health and Climate Change. (2025). ***The Lancet***. [in press]

Stresman G, Nelli L, Wu L, Byrne I, Surendra H, Fernandez-Camacho B, **Ruiz-Cabrejos J**, et al. Evidence-based decision-making for malaria elimination: Applying the Freedom From Infection statistical framework in five malaria eliminating countries. (2025). ***The Lancet Global Health***, *13(9), e1591-e1604.*

Fernandez-Camacho, B., Peña-Calero, B., Guillermo-Roman, **Ruiz-Cabrejos J**, M. et al. (2024) Malaria seroepidemiology in very low transmission settings in the Peruvian Amazon. *Scientific Reports, 14(1), 2806.*

Navarro, R., Paredes, J.L., Tucto, L. Medina C, Angles-Yanqui E, Nario JC, **Ruiz-Cabrejos J**, et al. (2022). Bovine lactoferrin for the prevention of COVID-19 infection in health care personnel: a double-blinded randomized clinical trial (LF-COVID). *Biometals, 36(3), 463-472.*

Carrasco-Escobar G, Matta-Chuquisapon J, Manrique E, **Ruiz-Cabrejos J**, et al. (2022) Quantifying the effect of human population mobility on malaria risk in the Peruvian Amazon. ***Royal Society Open Science**, 9(7), 211611.*

Gianella C**, Ruiz-Cabrejos J**, et al. Reverting five years of progress: Impact of COVID-19 on maternal mortality in Peru. (2021). *Cmi Brief, 2021(1).*

Carrasco-Escobar G, Fornace K, Wong D, Padilla-Huamantinco PG., Saldaña-Lopez Jose A., Castillo-Meza Ober E., Caballero-Andrade Armando E., Manrique E, **Ruiz-Cabrejos J**, et al. (2020). Open-Source 3D Printable GPS Tracker to Characterize the Role of Human Population Movement on Malaria Epidemiology in River Networks: A Proof-of-Concept Study in the Peruvian Amazon. *Frontiers in Public Health, 8, 526468.*

Carrasco-Escobar G, Manrique E, **Ruiz-Cabrejos J**, et al. (2019). High-accuracy detection of malaria vector larval habitats using drone-based multispectral imagery. ***PLOS Neglected Tropical Diseases** 13:e0007105.*

Carrasco-Escobar G, Castro MC, Barboza JL, **Ruiz-Cabrejos J**, et al. (2019). Use of open mobile mapping tool to assess human mobility traceability in rural offline populations with contrasting malaria dynamics. *PeerJ 6:e6298.*

Lazo M, Valderrama M, Perez J, Garcia J, **Ruiz-Cabrejos J**, et al. (2016). Strengthening Peruvian Immunization Records through Mobile Data Collection Using the ODK App. *Global Inmunization News (GIN).*

Languages

SPANISH	Native Speaker
ENGLISH	Level C1. Cambridge Certificate in Advance English (CAE)

Skills

Applications.

MS Office:	Advanced
XLSForms / RedCap/ CommCare:	Advanced
Git:	Advanced
HTML:	Intermediate
Bash / Linux / SLURM	Basic

Statistics and Data Software.

R / (R)markdown / R Shiny:	Advanced
Python:	Advanced
SQL / GraphQL:	Advanced
SPSS / STATA:	Intermediate
SAS:	Basic

Geographical and Viz Software.

Ggplot2 / Plotly:	Advanced
QGis:	Advanced
Power BI / Tableau:	Intermediate

Others

DJI Drone operator:	Advanced