

JUAN FRANCISCO SALDARRIAGA

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EDUCATION

- Masters in Architecture, Graduate School of Architecture, Planning and Preservation, Columbia University in the City of New York, May 2012.
- Masters of Science in Urban Planning, Graduate School of Architecture, Planning and Preservation, Columbia University in the City of New York, December 2009.
- Bachelors of Arts in Philosophy, Department of Philosophy, Universidad de Los Andes, May 2004.

PROFESSIONAL APPOINTMENTS

- Google, Geo Sustainability, Senior Computational Designer, 2022 - Present.
- Cornell University, Visiting Critic, 2025.
- Columbia University in the City of New York, School of Journalism, Brown Institute for Media Innovation, Senior Data and Design Researcher, 2018 - 2022.
- Columbia University in the City of New York, Graduate School of Architecture, Planning and Preservation, Adjunct Assistant Professor, 2013 - 2022.
- Columbia University in the City of New York, Graduate School of Architecture, Planning and Preservation, Center for Spatial Research, Mellon Research Scholar, 2015 - 2018.
- Columbia University in the City of New York, Graduate School of Architecture, Planning and Preservation, Spatial Information Design Lab, Associate Research Scholar, 2013 - 2015.

- Carlos Zapata Studio, Architectural Designer, 2012 - 2013.
- Catholic Charities of New York, GIS Project Lead, 2009.

CONSULTING SERVICES

- Newest Americans - Rutgers University, Interactive Mapping Designer, 2020 - 2021.
- WeWork, Interactive Mapping Designer, 2018 - 2019.
- Misión de Observación Electoral, Colombia, Interactive Mapping Designer, 2018.
- Envelope, GIS Project Lead, 2016 - 2017.
- Two Trees Management, GIS Lead and Mapping Designer, 2015, 2018.

PEER REVIEWED PUBLICATIONS

- A Gravity Model Analysis Of Forced Displacement In Colombia, Saldarriaga, J., Yuan, H., published in Cities, Volume 95, 2019.
- Measuring Changes In Taxi Trips Near Infill Development And Issues For Curbside Management Of For-Hire Vehicles, Saldarriaga, J., King, D., published in Research in Transportation Business & Management, 2018.
- Spatial Regulation Of Taxicab Services: Measuring Excess Travel From New York City, Saldarriaga, J., King, D., published in the Journal of Transport and Land Use, Volume 11 No. 1, 2018.
- Visualizing Conflict: Possibilities For Urban Research, Saldarriaga, J., Kurgan, L., Brawley, D., published in Urban Planning, Volume 2, No. 1, 2017.
- Access to taxicabs for unbanked households: an exploratory analysis in New York City, Saldarriaga J., King, D., published in the Journal of Public Transportation, Volume 20.1, 2017.

CONFERENCE PROCEEDINGS

- Modeling Social Justice Issues in Urban Zones Using Big Data: Evidence from Bikeshare and Taxicab Data, King, D., Peters, J., Davidson, A., Saldarriaga, J., in Proceedings from the Workshop

in Big Data and Urban Informatics, University of Illinois at Chicago, 2014.

OTHER PUBLICATIONS

- Conflict Urbanism: Colombia, Saldarriaga, J., published in Motherland: Parangolé - A Journal About the Urbanized Planet, Issue 1, 2021.
- Displacement, Saldarriaga, J., published in Yuca Magazine, The Architecture Alibi & Migrations Issue, 2017.
- The Haven Project - Metrics, Kurgan, L., Saldarriaga, J., Izen, J., New York Restoration Project, published in Landscape Architecture Frontiers, Issue 4, 2016.
- Here Now! Social Media and the Psychological City, Saldarriaga, J., Williams, S., published in the Atlas of Design, Volume 1, 2012.
- Bicycle Commuting And Its Relation To Infrastructure And Demographics: New York City, 1990 - 2000, Saldarriaga, J., Masters of Urban Planning Thesis, Columbia University, 2008.

RESEARCH PROJECTS

- Urban Remediation Sites and Their Relation to Gentrification, a mapping, spatial analysis, and visualization project in collaboration with CUNY and Urban Omnibus, Saldarriaga, J., Checker, M., Mogilevich, M., Johnson, G., 2021 - present.
- Dismantling Global Hindutva Analysis, a data analysis project examining social media activity around the Dismantling Global Hindutva conference, Ahmed, M., Saldarriaga, J., Devulapalli, S., 2021 - present.
- Uprooted: How Newark Acquired a Medical School and Destroyed a Neighborhood, a visual storytelling and interactive mapping project chronicling forced displacement in Newark, NJ, Newest Americans, Saldarriaga, J., 2020 - 2021.
- Muslims in India, a project documenting, analyzing and visualizing the state of the Muslim population in India, Hankel, B., Jaffrelot, C., Ahmed, M., Saldarriaga, J., 2021.

- AR for Everyone! Experiencing Augmented Reality News Stories in the Browser, an exploration in and documentation of combining mapping and augmented reality to create news stories for the browser, Schneider, Z., Saldarriaga, J., Aneja, S., 2021.
- Analyzing Choice of Transportation in New York City During Covid-19, a data analysis, visualization and mapping project looking into the changes in transportation patterns in New York City during the Covid-19 pandemic. Saldarriaga, J., King, D., 2020 - 2021.
- Mapping Data Flows, a visual exploration of the types of data collected by Amazon, Apple, Facebook, and Google, and what they use it for. Battelle, J., Saldarriaga, J., Martin, Z., Albasi, M., Bhuta, N., Penney, V., 2018 - 2019.
- Counting and Mapping Police Killings, a statistical and mapping investigation into extra-judicial killings in the Philippines, Coronel, S., Ball, P., Saldarriaga, J., Security Forces Monitor, 2018 - 2019.
- Conflict Urbanism: Infrapolitics, a spatial investigation into the politics and social acts behind infrastructure in three global-south cities, Mumbai, Johannesburg, and Medellín. Kurgan, L., Rao, A., Saldarriaga J., McSweeney, M., 2017 - 2018.
- Conflict Urbanism: Colombia, an interactive mapping and spatial analysis project examining the Colombian conflict and its effect in the urban environment. Kurgan, L., Saldarriaga, J., Rettberg, A., 2015 - 2017.
- Mapping Mughal Hindustan, 1500 - 1600 CE, a scholarly and interactive mapping project which re-frames the various sites of early Mughal Hindustan as affective geography. Ahmed, M., Saldarriaga, J., Devulapalli, S., Fattaleh, N., Sá Pereira, M., 2018.
- How We Die, a dynamic topographical installation that visualizes the leading causes of death in New York City between 2007 and 2013. Saldarriaga J., Sanchez, S., 2018.
- Locations of Justice, an interactive mapping project documenting the reach and locations of the institutions and agencies involved in New York City's criminal justice system. Kurgan, L.,

Saldarriaga, J., Hartman, J., Architectural League, Urban Omnibus, 2017.

- The Haven Project, an interactive data visualization project analyzing health and environmental metrics for New York City. Kurgan, L., Saldarriaga, J., Izen, J., New York Restoration Project, 2015.
- Science Surveyor - Context on Deadline, an interactive application providing context information for science journalists on a deadline, Holloway, M., Tenen, D., Kurgan, L., Jurafsky, D., McFarland, D., Saldarriaga, J., Basic, G, 2014 - 2015.
- Citibike Station Imbalances & Citibike Rides, data visualization and mapping projects studying Citibike usage, activity data and station imbalances, Saldarriaga, J., King, D., Kaufman, S., Ferzoco, J., 2014.
- Port to Port, an interactive data visualization and mapping analysis of 6 years of oil shipment routes to and from U.S. ports, Kurgan, L., Saldarriaga, J., Berner, A., Murray., S., 2014.
- NYC Taxi Activity, data visualization animations illustrating movement and imbalance patterns in New York City taxicabs, Saldarriaga, J., King, D., Peters, J., 2012.
- Here Now! Social Media And The Psychological City, data visualization and mapping project studying social media check-ins in New York City. Williams, S., Saldarriaga, J., Bullen, G., Tan, F., Youse, N., 2011.

AWARDS, EXHIBITIONS AND GRANTS

- AR for Everyone! Experiencing Augmented Reality News Stories in the Browser, selected as one of the winners of the 2020 Journalism 360 Challenge, 2019.
- Points Unknown: New Frameworks for Investigation and Creative Expression Through Mapping, principal investigator. A Columbia University Collaboratory grant to create and implement courses that combine mapping, narrative and storytelling in the School of Journalism and in the Graduate School of Architecture, Planning and Preservation. Columbia University, 2016 - 2018.

- How We Die, exhibited at the Data Through Design art exhibit, at Made in NY Media Center, New York, 2018.
- Conflict Urbanism: Colombia, awarded best academic visualization at the CitiViz competition organized by Habitat X Change during UN's Habitat 3 summit, 2016.
- Conflict Urbanism: Colombia, exhibited at the Oslo Architectural Triennale - On Residence, Oslo, Norway, 2016.
- Here Now! Social Media and the Psychological City, exhibited at BRIC Arts and Media House, New York, 2015, Get It Louder, Beijing, China, 2013, and Digitas, New York, 2012.

INVITED TALKS

- Conflict Urbanism: Colombia, workshop session presented at the Quantification of Urban Space lecture series, University of London Institute in Paris, 2021.
- Mapping Data Flows, data presentation for the AI and Data Governance panel at the Global Solutions Summit 2020.
- Mobility + Spatial Agency: Autonomy in the New Urban Interface, AIA New York, New York, 2019.
- Spatial Data Analysis and Visualization, lecture for the Housing Studio masters course at The City University of New York, New York, 2018.
- Research Through Visualization, lecture for the Strategic Communications masters course at The City University of New York, New York, 2018.
- Visualizing the conflict: Maps, animation and experimental methods, lecture sponsored by the Masters in Peacebuilding at the Universidad de Los Andes, Bogotá, Colombia, 2017.
- Conflict Urbanism, lecture for the Inaugural Programming "Foundations of the Digital, Foundations in the Humanities: Race, Gender, Class" lecture series at Studio Chi, DePaul University, Chicago, 2017.

- Research Through Visualization, lecture for the Research Methods course at the Masters of Science of Architecture at Penn State University, State College, PA, 2017.
- Visualizing New York's Citibikes: Imbalances, Social Justice Issues And Its Interaction With Other Modes of Transportation, lecture for the International Workshop in Data Analytics and Visualization in Transport, IFSTTAR, Paris, France, 2014.
- The Uncertainties of Data, lecture for the City As Resource Lecture Series, Zürcher Hochschule der Künste, Zürich, Switzerland, 2014.

CONFERENCE PARTICIPATION

- Exploring and Mapping NYC's Building Energy Data Through Programming, workshop session presented during the 2022 NYC Open Data Week, New York, 2022.
- Points Unknown - Reflections from 4 years of Teaching Cartographic Narratives, presented at the North American Cartographic Association Annual Meeting, Oklahoma City, Oklahoma, 2021.
- Conflict Urbanism: Colombia - The Memory of a Conflict Through a Single Dataset, presented at the Visualization and the Holocaust conference, Nasher Museum of Art at Duke University, Durham, North Carolina, 2019.
- Mapping and Data Analysis of Forced Displacement, presentation at the Build Peace conference, Bogotá, Colombia, 2017.
- Conflict Urbanism: Colombia & Aleppo, presented at the NACIS Annual Conference, Montreal, Canada, 2017.
- Conflict Urbanism: Colombia, demoed at the Tapestry conference, St. Augustine, FL, 2017.
- Environmental Costs of Spatial Regulation of Taxicabs, presented at the Second Annual Symposium on Transportation Informatics, Arlington, Virginia, 2016.
- Access to Taxicabs for Unbanked Households: An Exploratory Analysis in New York City, presented at the ACSP 2016 56th Annual Conference, Portland, Oregon, 2016.

- o Environmental Costs of Spatial Regulation of Taxicabs, presented at the NACIS Annual Conference, Colorado Springs, Colorado, 2016.
- o Access to Taxicabs for Unbanked Households: An Exploratory Analysis in New York City, presented at Bloomberg's Data for Good Exchange conference, New York, New York, 2016.
- o Modeling Social Justice Issues in Urban Zones Using Big Data: Evidence from Bikeshare and Taxicab Data, presented at the Workshop on Big Data And Urban Informatics, University of Illinois at Chicago, Illinois, 2014.

CAMPUS TALKS

- o Moving Around During the Pandemic, presentation at the 16th COVID-19 Virtual Symposium, 2020.
- o Conflict Urbanism: Visualizing Conflict Data Through Mapping and Spatial Analysis, lecture and workshop for the Art of Data Visualization: Art or Knowledge conference at Columbia University, 2017.
- o Activity Mapping, lecture for the Columbia Data Science Society students at Columbia University, 2016.
- o Activity Mapping, lecture and workshop for the Art of Data Visualization Conference at Columbia University, 2016.
- o Activity Mapping, lecture for the Urban Design Event Series at Columbia University, 2015. Patterns & Arguments, lecture for the Urban Design Event Series at Columbia University, 2014.

TEACHING EXPERIENCE

- o Points Unknown: New Frameworks for Investigation and Creative Expression Through Mapping, four and five week workshops and full semester graduate course combining mapping, narrative and storytelling for the School of Journalism and the Graduate School of Architecture, Planning and Preservation (Columbia University, Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020, Spring 2021, Summer 2021, Spring 2022).
- o Cartografías Sociales, a 7 week course introducing professional architects and urban planners to new methods in spatial data

analysis, mapping, and representation (Institute for Advanced Architecture of Catalonia, Spring 2022).

- Introduction to Computational Journalism, an introductory five-day workshop on tools, methods, and concepts such as programming, reproducible research, web scraping, and APIs, for professional journalists from the European Broadcasting Union (Columbia University, Summer 2019).
- Data Visualization for Architecture, Urbanism and the Humanities, an introduction to data visualization theory and methods for students new to the fields of computation and information design. Interdisciplinary, undergraduate and graduate levels (Columbia University, Spring 2017, Spring 2018).
- Mapping for Architecture, Urbanism and the Humanities, an introductory mapping course combining methods and topics for architecture, urbanism and the humanities. Interdisciplinary, undergraduate and graduate levels (Columbia University, Spring 2016, Fall 2016).
- Advanced Geographic Information Systems, an urban planning graduate seminar in advanced techniques and methods in geographic information systems (Columbia University, Spring 2014, Spring 2015, Fall 2015).
- Geographic Information Systems, a GIS course for the Epidemiology and Population Health Summer Institute (Columbia University, Summer 2015).
- Open Cartographies, an architecture graduate course exploring new techniques in mapping, web mapping and data visualization (Columbia University, Fall 2014).

SERVICE TO THE PROFESSION

- Manuscript review for the *Frontiers In Future Transportation* academic journal, 2022.
- Manuscript review for the *Environment and Planning B: Urban Analytics and City Science* academic journal, 2018, 2021.
- Member of the Program Committee for the Urban Data Visualization Workshop (CityVis), IEEE VIS Conference (2018 - 2019).

- Member of the organizing committee for the Data Through Design Exhibition, 2019.
- Member of the Program Committee for the CityVis Competition 2018, IEEE VIS Conference 2018.

EXTRACURRICULAR UNIVERSITY SERVICE

- Affiliated member of the Data Science Institute (Data, Media and Society, Education, and Smart Cities centers), Columbia University, 2019.
- Member of the Group for Experimental Methods in the Humanities, Columbia University, 2015 to present.
- Member of the organizing committee of The Art of Data Visualization conference, Columbia University, 2018 - 2019.
- Member of Columbia Digital Humanities, Columbia University, 2015 to present.
- Grant proposal reviewer for the Collaboratory Fellows Fund, Columbia University, 2018.

MEDIA COVERAGE

- Puerto Rico Mapathon, a collaborative workshop to improve geographic data of Puerto Rico in wake of hurricane Maria. Organized along with the Group for Experimental Methods in the Humanities. Covered by the New York Times, The Atlantic CityLab, PBS and Wired, 2017.
- Citibike Rebalancing Study, featured in The Washington Post and StreetsBlog NYC, 2014.
- Rides, a video animation of 48 hours of Citibike rides. Featured in The New York Times and Fast Company Co.Design, 2014.
- New York City Taxi Activity, a visualization of origins and destinations of yellow cabs in New York City. Featured in The Atlantic CityLab, 2012.
- Here Now! Social Media and the Psychological City, featured in ArchDaily, 2012.

- Taxi! A video animation of taxi rides around New York City. Featured in The Atlantic CityLab and [FlowingData](#), 2012.

PROFESSIONAL SKILLS

- Proficiency in Python (including Pandas, Geopandas, Matplotlib, and Altair), Postgresql (including PostGIS), GIS (ArcGIS and QGIS), Web mapping (including Mapbox, Leaflet, Carto, and Tangram), JavaScript (including D3, p5, and Three.js), Git, Rhinoceros (including Grasshopper), 3DS Max, Maya, AutoCAD, Adobe Creative Suite, Processing, Arduino, HTML, CSS, SPSS, and MS Office.

LANGUAGES

- English (fluent), Spanish (native), French (fluent), Modern Greek (Basic)