

## **Federico Andrade-Rivas**

(He/Him/His)

PhD Candidate – School of Population and Public Health

University of British Columbia, BC

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### **CURRENT POSITIONS**

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| <b>School of Population and Public Health</b><br><b>University of British Columbia</b><br>PhD Candidate (Oral defense scheduled in June 2023)<br>Advisor: Dr. Jerry Spiegel<br>Committee: Dr. Sarah Henderson, Dr. Lael Parrott, Dr. Matilda van den Bosch | 2016 - Present |
| <b>Universidad El Bosque</b><br><b>Environmental Health Institute</b><br>Assistant Professor   | 2021 – Present |

### **EDUCATION**

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|---|---------------|
| <b>University of British Columbia</b><br>Population and Public Health PhD<br>Focus: Environmental Health and Global Health<br>Vancouver, Canada | Expected 2023 |
| <b>University of Cape Town</b><br>Master of Public Health<br>Honours degree, dissertation with distinction<br>Cape Town, South Africa           | 2011-2012     |
| <b>Universidad de los Andes</b><br>BS in Environmental Engineer<br>Bogotá, Colombia   | 2002-2009     |
| <b>Universidad de los Andes,</b><br>BA in Anthropology<br>Bogotá, Colombia  | 2002-2009     |

### **PROFESSIONAL AND ACADEMIC EXPERIENCE**

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| <b>City of Vancouver</b><br><b>Arts, Culture &amp; Community Services</b><br>UBC Sustainability Scholar   | April 2023 – to date |
| <ul style="list-style-type: none"><li>• Research and analysis of exclusionary zoning and environmental racism in Vancouver</li><li>• Identify correlations between discriminatory land use policies, demographics, hazard exposure, and vulnerability</li></ul> |                      |

**Global Observatory of Pollution and Health**  
**The Schiller Institute for Integrated Science and Society**  
**Boston College**  
Planetary Health Visiting Scholar

Sept. 2021 – February 2022

- Host Supervisor: Dr. Philip Landrigan

**Global Health Research Program**  
**University of British Columbia,**  
**Vancouver, Canada**  
Research Assistant

October 2016 – March 2020

- RA of the Think, Eat, and Grow Green Globally (TEG3) project funded by the Canadian Institutes of Health Research (CIHR)

**Research Vice-Rector**  
**Universidad El Bosque,**  
Bogotá, Colombia  
Researcher - Professor

August 2014 – August 2016

- Research advisor in Public Health and Environmental Engineering
- Researcher at the OSSA (Health, Environment and GIS group), Environment and Health research group, and Human, Work, and Health research group

**Exploring the Healthy Cities concept as an strategy to promote health and prevent non-communicable diseases**  
**University of Antioquia–Pan American Health Organization,**  
Medellín Colombia  
Researcher

March 2014- July 2014

- Designing methodology
- Data collection
- Data analysis and report

**Access to Health Care services in Medellín:**  
**An assessment and monitoring proposal.**  
**Universidad de Antioquia – City of Medellín,**  
Medellín, Colombia  
Researcher

June 2013 – January 2014

- Designing methodology and research activities
- Qualitative data collection
- Data analysis and report

**Herbicide exposure prevention study for Working for Water  
Centre for Occupational and Environmental Health Research  
School of Public Health and Family Medicine  
University of Cape Town,  
South Africa**

September 2011- July 2013

- Conduct research to understand risk perceptions of herbicides use among Working for Waters workers in the Western Cape
- Conduct research to understand cultural and social factors that might influence worker's health-related behaviors.
- Collaborate in the design of a culturally appropriate interventions to reduce workers exposures to herbicides.

**Healthy lifestyle behaviors for the prevention of non-communicable diseases in the Global South**

January 2012 – June 2013

**INER- ESSM (Research Unit for Exercise Science and Sports Medicine) – African Centre for Cities  
Universidad de Antioquia – University of Cape Town  
Researcher**

- Designing methodology and research activities
- Collaborating on writing reports and projects for founders and participating institutions

**INAP**

June 2010 - February 2011

**National Project for Adaptation to Climate Change  
Conservation International - National Health Institute  
Research Design and Implementation**

- Characterize the Malaria surveillance system in a Colombian indigenous community with high risk of contagion
- Developing and conducting participatory educational programs to strengthen the National Malaria Surveillance System.

## **AWARDS, FELLOWSHIPS, AND GRANTS**

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- 2022 Stanford University. Ethics, Society, and Technology Seed Hub (US\$10,000). "Biocultural values for sustainable tourism in Colombia: Engaging, Assessing, and Planning". Stanford University 2022. Co-PIs: **Federico Andrade-Rivas**, Armando Davila Arenas, Katherine Hernandez, Gretchen C Daily, Lisa Mandle, Rodolfo Dirzo, Tad Fukami, Natalia Ocampo-Peñuela Alejandra Echeverri
  - 2022 UCLA- Pritzker fellowship (US\$7,000). "No music without trees or birds: A spatial analysis of cultural reliance and relationships to endemic flora and fauna species in Colombia". Co-PIs: **Federico Andrade-Rivas**, Armando Davila Arenas, Katherine Hernandez, Gretchen C Daily, Lisa Mandle, Rodolfo Dirzo, Tad Fukami, Natalia Ocampo-Peñuela Alejandra Echeverri
  - 2022-2024 Stanford University - London School of Hygiene and Tropical Medicine. Human and Planetary Health Postdoctoral Scholar, (USD \$160,000) (*Declined*)

- 2021 -2022 University of British Columbia - Friedman Award for Scholar in Health (USD \$20,000)
- 2021 University of British Columbia - President's Academic Excellence Initiative PhD Award (USD \$1,000)
- 2019-2020 School of Population and Public Health, University of British Columbia. Professor Anne Crichton Prize (Best Thesis Proposal) (USD \$1,000)
- 2018 – 2021 Canadian Institutes of Health Research- CIHR. Vanier Scholar (USD \$120,000)
- 2017 The Lancet - The Rockefeller Foundation. Travel Grant Planetary Health Alliance
- 2016 University of British Columbia - Graduate Global Leadership Fellowship (USD \$40,000)
- 2016 Green College's R. Howard Webster Foundation Fellowship (USD \$2,000)
- 2016 Colciencias, International PhD Scholarship (USD \$100,000)
- 2015 and 2016 Universidad El Bosque - Excellence Publication Award (USD \$1,000)
- 2015 Universidad El Bosque - Convocatoria Interna, Research Grant (USD \$10,000)
- 2013 University of Cape Town. Degree Dissertation with distinction, Master in Public Health
- 2012 University of Cape Town - JW Jagger Centenary Gift Scholarship
- 2011 Colfuturo Colombia Scholarship Master Degree (USD \$35,000)
- 2010 Colombian delegate for the NMC Italy (Young International Meeting of social entrepreneurs)
- 2008 Eighth place nationally in the Environmental Engineer ECAES (National State Exam of Higher Education Quality)
- 2007 Ashoka - Inter-American Development Bank - MTV Television. Changemaker
- 2006 Procter & Gamble. Prestige Scholarship - Puerta a la Excelencia (USD \$3,000)

## PUBLICATIONS

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### *Peer-reviewed journals (in English and Spanish\*\*)*

- **Andrade-Rivas F**, Paul N, Spiegel J, Henderson S, Parrott L, Delgado-Ron A, Echeverri A, van den Bosch M. Mapping potential population-level pesticide exposures in Ecuador using a modular and scalable geospatial strategy, *GeoHealth (In Press)*, 2023
- Delgado-Ron A, **Andrade-Rivas F**. Unwanted or mistimed pregnancy and developmental issues in Ecuadorian children aged 3 to 5: a doubly robust estimate using data from the National Health and Nutrition Survey 2018, *Matern Child Health J (In Press)*, 2023
- Feged-Rivadeneira A, **Andrade-Rivas F**, González F, Escobedo F. Scaling patterns of human diseases and population size in Colombia, *Glob Environ Chang*. 2022 Jul; 75:102546
- **\*\*Cabezas, L, Sanabria-Marin R, Andrade-Rivas, F, Darghan A, Olano VA.** Relationship between environmental variables and the spatial distribution of the *Aedes aegypti* mosquito in rural Colombia, *Rev. Salud Bosque*. 2022 May;12(1):1-18
- **Andrade-Rivas F**, Afshari R, Yassi A, Mardani A, Taft S, Guttmann M, Rao AS, Thomas S, Takaro T, Spiegel JM. Industrialization and Food safety for the Tsleil-Waututh Nation: An Analysis of Chemical Levels in Shellfish in Burrard Inlet, *Environ Res*. 2022 Apr; 206: 112575
- **\*\*Andrade-Rivas F**, Giraldo C, Yepes A, Estrategia de Entornos de Trabajo Saludables en el Sector Informal: perspectiva de los actores, *Rev Col Enf*, 2021; 20(1):e028

- Rossa-Roccor V, Acheson ES, **Andrade-Rivas F**, Coombe M, Ogura S, Super L, et al. Scoping Review and Bibliometric Analysis of the Term “Planetary Health” in the Peer-Reviewed Literature. *Front Public Health*. 2020;8.
- Thurston AM, **Andrade-Rivas F**, Spiegel JM. Results Communication in Breast Milk Biomonitoring Studies. *Health Hum Rights*. 2019 Jun;21(1):63–79.
- \*\*Vásquez-González JC, **Andrade-Rivas F**. Construcción experta del espacio vivido en Medellín. *Caso Parques del Río*. *Bitácora Urbano Territ*. 2019 Dec;29(3):109–16.
- **Andrade-Rivas F**, Romero M. Misinformation About HIV and Negative Attitudes Toward Homosexuality and Same-Sex Couples’ Rights: The Case of Colombia. *Int J Public Opin Res*. 2016 May 4;edw011.
- **Andrade-Rivas F**, Rother H-A. Chemical exposure reduction: Factors impacting on South African herbicide sprayers’ personal protective equipment compliance and high risk work practices. *Environ Res*. 2015 Oct;142:34–45.
- \*\*Restrepo-Zea JH, Silva-Maya C, **Andrade-Rivas F**, VH-Dover R. Acceso a servicios de salud: análisis de barreras y estrategias en el caso de Medellín, Colombia. *Gerenc Políticas Salud*. 2014 Dec 19;13(27):242–65.

*Manuscripts in Progress (Full manuscripts available upon request)*

- Feged-Rivadeneira A, González-Casabianca F, Parra-Salazar A, Salcedo-Ortiz J, **Andrade-Rivas F**, Cárdenas P, Morales A, Damelines-Pareja J, Rios-Oliveros D, Salazar C, Usma S, Muñoz M, Patiño L, Ballesteros N, Ramírez J, Ángel A, Rodríguez T, Cascante Vega J, Galindo-Silva H, Majerowicz S, Corredor V. (In revision in *Nature Communications*). Using Big Data and Network Theory to Inform Decision-making on COVID-19 in Bogotá
- **Andrade-Rivas F**, Delgado-Ron A, van den Bosch M, Spiegel, J, Parrott L, Henderson, S. (In prep) Agricultural pesticide exposures in Ecuador and their association with perinatal outcomes: a combined cluster detection and spatial Bayesian modelling approach
- **Andrade-Rivas F**, Okpani AI, Lucumí D, Castillo MD, Karim, E. (In prep) Household air pollution from cooking fuel and neonatal death: a multi-year cross sectional study in Colombia, 2005-2015
- **Andrade Rivas F**, Kassem, H, Cassidy-Matthews, C, Parrott L, Spiegel J. (In Prep). Community engagement in Indigenous Food systems contamination studies: A scoping review and lessons from the field

*Conference papers and posters (in English and Spanish\*\*)*

- **Andrade-Rivas F**, Afshari R, Yassi A, Mardani A, Taft S, Guttmann M, Rao AS, Thomas S, Takaro T, Spiegel JM. “Approaches to advancing healthy and sustainable food systems: Lessons from the Tsleil-Waututh Nation’s struggle to establish sovereign management of resources”. 8<sup>th</sup> Biennial EcoHealth Conference, University of Kwazulu-Natal, Durban (South Africa), 2022
- **Andrade-Rivas F**, Paul N, Spiegel J, Henderson S, Parrott L, Delgado-Ron A, Echeverri A, van den Bosch M. “Mapping potential population-level pesticide exposures using a modular and scalable geospatial strategy”. Planetary Health Alliance Meeting, Harvard University, Boston (USA), 2022
- **Andrade-Rivas F. (Guest speaker - Panelist)** “Hacia una mirada “glocal” de la salud planetaria y la contaminación de los sistemas alimentarios” Simposio Salud Ambiental - XII Congreso Nacional de Toxicología, Universidad de Guanajuato, Guanajuato (Mexico), 2022
- **Andrade-Rivas F. (Guest speaker)** “Apropiación social de la investigación científica y artística: Hacia la transformación de las condiciones de vida y la construcción colectiva del

conocimiento”. XXVII Congreso Institucional de Investigaciones Universidad El Bosque, Bogota (Colombia), 2021

- Delgado-Ron A, **Andrade-Rivas F**. “The effect of unintended pregnancies on the early child development of Ecuadorian children”. Tri-Cluster Research Day: The Future of Health, University of British Columbia, Vancouver (Canada), 2021
- **\*\*Andrade-Rivas F. (Guest speaker – Panelist)** “Equidad y justicia social: la imperativa moral de la salud planetaria”, Primer Congreso Latinoamericano de Salud Planetaria, Universidad de Costa Rica – Planetary Health Alliance – Lancet Countdown, San Jose (Costa Rica), 2021
- Rossa-Roccor V, Acheson E, **Andrade-Rivas F**, Coombe M, Ogura S, Super L, et al. “Mission accomplished? A scoping review and bibliometric analysis of the term “planetary health” in the peer-reviewed literature”. Planetary Health Alliance Meeting, Stanford, Stanford (USA), 2019. Selected for proceedings publication: Lancet Planet Health. 2019 Sep 1;3:S17.
- **Andrade-Rivas, F**. “Bananas, roses, shellfish, and crabs: chemical pollution and planetary health in traditional and indigenous communities across the globe”. Cascadia Annual Symposium on Environmental, Occupational, and Public Health, Blaine, Washington (USA), 2019
- **Andrade-Rivas, F**. “Communicating results in environmental contamination studies: Considering challenges and approaches for ethical global health research.”, 7<sup>th</sup> Biennial EcoHealth Conference, Cali (Colombia), 2018
- Thurston, A, **Andrade-Rivas, F**, Spiegel, J. “A scoping review of community engagement in environmental contamination studies: Considering challenges and approaches for ethical global health research” Ethical Challenges and Issues in Global Health Research, Montreal (Canada), 2016
- Rother, HA **Andrade-Rivas, F**, and DeSouza, M. “When Standard Occupational Exposure Assessments Are Unsuitable – Exposure Observations with South African Herbicide Sprayers”. Occupational and Environmental Medicine 71, no. Suppl 1 (June 1, 2014): A116–A116. doi:10.1136/oemed-2014-102362.366.
- **\*\*Restrepo-Zea JH, Silva-Maya C, Andrade-Rivas F, VH-Dover R**. Acceso a los servicios de salud en la ciudad de Medellín: Caracterización y propuesta para el monitoreo y la vigilancia” (Access to Health care: assessment and monitoring proposal), Conference, VI Congreso Iberoamericano de Investigación Cualitativa en Salud, Medellín, 2014
- **\*\*Silva-Maya C, Andrade-Rivas F, Restrepo-Zea JH, VH-Dover R** “La cartografía social en la caracterización del acceso a los servicios de salud en la ciudad de Medellín” (Social cartography applied to Health care Access issues in Medellín, Colombia), Conference, VI Congreso Iberoamericano de Investigación Cualitativa en Salud, Medellín, 2014
- **\*\*Andrade-Rivas, F** “Influencia de la percepción del riesgo y el contexto social en el uso de Equipo de Protección: El caso de aplicadores de herbicidas en Sudáfrica”, Conference, VI Congreso Iberoamericano de Investigación Cualitativa en Salud, Medellín, 2014
- **\*\*Andrade-Rivas, F** “El acceso a los servicios de salud en Medellín ¿es posible un goce efectivo y ejercicio ciudadano del derecho a la salud?”, Seminario Configuraciones Ciudadanas en contextos de transición y globalización, Universidad de Antioquia, Medellín, 2014

## *Other publications*

- \*\*\*“Acceso a los servicios de salud en la ciudad de Medellín: caracterización y propuesta para el monitoreo y la vigilancia” GES (Grupo Economía de la Salud) e INER (Instituto de Estudios regionales) de la Universidad de Antioquia. Publicación de la Secretaría de Salud de Medellín y en proceso de publicación en revista indexada (2014)
- \*\*\*“Respuesta al incremento de la exposición de vectores de enfermedades tropicales (malaria y dengue) inducidos por el cambio climático. Componente Social” Instituto Nacional de Salud – Conservación Internacional, 2010
- Master of Public Health dissertation: “Influence of risk perceptions and social context on Working for Water herbicide sprayers Personal Protective Equipment (PPE) compliance in the Western Cape of South Africa”, University of Cape Town, 2013
- \*\*Environmental Engineering thesis. “Degradación de la cuenca del río Magdalena: una mirada desde algunos indicadores sociales y los servicios ambientales asociados al agua”, Universidad de los Andes, 2008

## **AD-HOC REVIEWS FOR JOURNALS AND CONFERENCES**

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Environmental Research (n=1), Global Health Promotion (n=1), Renewal Agriculture and Food Systems (n=1), International Journal of Health Policy and Management (n=1), Frontiers in Public Health (n=1), Revista Gerencia y Políticas de Salud (n=1), Revista Hacia la Promoción de la Salud (n=1), Revista Ingeniería UniValle (n=1), Revista Nacional de Enfermería (n=1), UBC and BC Children’s Hospital Global Health Conference 2021, Congreso Universidad El Bosque 2021, Universidad El Bosque Master external examiner (n =3), UBC Graduate Student Symposium 2017

## **SOCIETY AND COLLECTIVES MEMBERSHIPS**

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Planetary Health Alliance Emergent Scholar, UBC Planetary Health Club (co-founder), Planetary Health Alliance Regional Hubs - Latin America, Mesa Técnica Ciudadana y Académica por la Calidad del Aire, Canadian Coalition for Global Health Research, British Columbia Coalition Institute

## **TEACHING, ACADEMIC SEMINARS, AND GUEST LECTURER**

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### **Faculty of Nursing**

Universidad El Bosque,  
Bogotá, Colombia  
Lecturer

August 2015 – present

- Mixed Methods in Public Health Research, Graduate Online Course, Master of Community Mental Health and Master of Reproductive and Sexual Health



**School of Population and Public Health**

2018 – present

University of British Columbia,  
Vancouver, Canada  
Guest Lecturer

- Overview of Global Health (Graduate)  
Professor: Gina Ogilvie
- Social Determinants of Health (Graduate)  
Professor: Anne Gadermann
- Topics in Environmental Health (Undergraduate)  
Professor: Kate Weinberger
- Topics in Environmental Health (Graduate)  
Professor: Anders Erickson

**Public Health Initiative**

January 2023

The School of Government and Public Transformation,  
Tecnológico de Monterrey,  
Monterrey, Mexico  
Invited Seminar

- Talk: “Mapping potential population-level pesticide exposures in Ecuador using a modular and scalable geospatial strategy”

**Biology Department**

November 2021

Boston College,  
Chestnut Hill, Massachusetts  
Invited Seminar

- Talk: “Planetary Health Across Scales: From local collaborations to global pollution issues”

**Natural Capital Project**

September 2021

Woods Institute for the Environment and Department of Biology  
Stanford University,  
Stanford, California  
Natural Capital Webinar Series

- Talk: “Planetary Health Across Scales: From local collaborations to global pollution issues”

**Global Observatory of Pollution and Health**

February 2021

Boston College,  
Boston, Massachusetts  
Guest Lecturer

- Children’s Health and the Environment  
Course Professors: Phillip Landrigan and Britt Pados



**Department of Indigenous Studies**

October 2020

University of Winnipeg,  
Winnipeg, Canada  
Guest Lecturer

- Ethnoecology Research  
Course Professor: Shailesh Shukla

**School of Population and Public Health**September 2018 –  
December 2019

University of British Columbia  
Vancouver, Canada  
Teaching Assistant

- Topics in Environmental Health (Undergraduate)  
Course Professor: Matilda van den Bosch  
Role: designing and facilitating weekly workshops
- Topics in Environmental Health (Graduate)  
Course Professor: Anders Erickson
- Global Health and Human Security  
Course Professor: Jerry Spiegel

**Faculty of Engineering**

October 2014

Universidad de los Andes  
Bogotá, Colombia  
Guest Lecturer

- Introduction to Environmental Engineering

**Faculty of Social Sciences**

2005 – 2008

Universidad de los Andes  
Bogotá, Colombia  
Teaching Assistant

- Introduction to Anthropology (4 times)
- History, Technology and Society

**STUDENT MENTORING**

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*Master thesis advisor (in English and Spanish\*\*)*

- \*\*Jenny Melisa Amaya Silva, Lilibeth Suarez, Master in Community Mental Health  
Thesis: Trayectorias de vida asociadas al consumo de sustancias psicoactivas en jóvenes con historia de habitabilidad de calle egresados de procesos de formación en instituciones distritales en Bogotá
- \*\*Julio Eduardo Mazorco Salas, Master in Community Mental Health  
Thesis: Representaciones sociales de salud mental en los miembros de una universidad
- \*\*Juan Camilo Vásquez, Master in Sociospatial Studies at Universidad de Antioquia, Colombia  
Thesis: Diseño del Espacio y el Espacio de Representación: Concepción Experta en el proyecto Parques del Río Medellín

#### *Master thesis examiner*

- \*\*Luis Ignacio López Michelena, Master in Occupational Health  
Thesis: La experiencia de la soledad en el teletrabajo: un análisis desde la fenomenología
- \*\*Fiorella Robayo Ospina, Master in Community Mental Health  
Thesis: Transformaciones de las identidades masculinas en hombres diagnosticados con lesión medular traumática vinculados al conflicto armado de Colombia: una exploración a través de sus historias de vida

#### *Graduate Diploma advisor*

- \*\*María Mónica Molano, Graduate Degree in Occupational Health  
Research Project: Percepción Acerca de la Seguridad y Salud en el Contexto del Trabajo Informal en un Grupo de Mujeres Trabajadores de la Localidad de Tunjuelito
- \*\*Diana Velásquez, Graduate Degree in Occupational Health  
Research Project: Situación actual de la Salud Ocupacional en Colombia: Una mirada histórica

#### *Graduate Mentorship Program, School of Population and Public Health*

- Nasim Niknejad, PhD student

#### *Undergraduate students- supervised a directed readings course or undergraduate projects:*

- David Choung (Boston College Biology, 2021)
- Alyssa Thurston (UBC Biology 2019)
- Co-mentored six undergraduate students in their GIS research projects (UEB, 2014-2016)

## **LEADERSHIP AND SERVICES**

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| <b>Mesa Técnica Ciudadana y Académica por la calidad del Aire (MeCAB)</b><br>Bogotá, Colombia<br>Researcher -Volunteer | 2019 - present |
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- Participatory space where we work together with activists, community members, policy makers and scholars to improve Bogotá's air quality

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| <b>La Comarca, Civil Society Natural Reserve</b><br>Choachí, Colombia<br>Co-director | 2016 - present |
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- Mission: Restore local ecosystems, particularly two river sources
- Collaborated to develop a network of private natural reserves
- Sharing knowledge with rural communities to improve human well being and the quality of the local ecosystems

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| <b>Graduate Student Ambassador</b><br>University of British Columbia<br>Volunteer | 2019 |
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- Guided prospective and newly admitted graduate students and advised them in their selection and transition to graduate school

**La Ciudad Verde (The Green City)**

Bogotá, Colombia

Researcher -Volunteer

April 2013 - 2019

- Working together with activists, community members and academics to design interventions to improve the sustainability and health of our cities

**Tierra Nativa and Guarino**

Asociación Santa Cruz

Project Director

Volunteer

2002 - 2010

- Director of “Guarino”, an outdoor educational project for low-income youths of Bogotá.
- Co-director of “Tierra Nativa”, an expedition program which aims to reach the most remote populations with aid and social work
- Consolidated Guarino Project in the international sphere, through distinctions such as “Change Maker” (Ashoka, IDB youth) and NMC (World Youth Meeting)

**ADDITIONAL INFORMATION**

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- Computing Skills: R, QGIS, SAS, Nvivo, ArcGIS, ENVI
  - Relevant Training: Instructional Skills Workshop (UBC Centre for Teaching and Learning); Assessing & Communicating Risk (The Society of Toxicology of Canada)