Luciana Iannone Tarcha

3221 I-STEM 2, UGA, Athens, GA 30602 | (762)728-1740 | litarcha@uga.edu | https://www.linkedin.com/in/lucianaiannonetarcha/

EDUCATION

University of Georgia (UGA), USA
Doctor of Philosophy (Ph.D.), Engineering – Environment and Water | GPA: 3.86/4.00 — 2023 - 2027 (expected)

São Paulo State University (UNESP), Brazil
Master of Science (M.S.), Civil and Environmental Engineering | GPA: 4.00/4.00 — 2019 - 2022
Bachelor of Science (B.S.), Civil Engineering | GPA: 3.40/4.00 — 2014 - 2019

University of São Paulo (USP), Brazil
Extension Certificate, Graduating Dental Auditors — Aug - Nov 2013
Bachelor of Science (B.S.), Dentistry — 2009 - 2013

RESEARCH EXPERIENCE

University of Georgia (UGA), USA
Graduate Research Assistant – Ph.D. Program — Aug 2023 - present

Member of the Compound Inundation Team for Resilient Applications (CITRA)
Research projects:
- › Towards an Operational Compound Flood Model for the St. Johns River – NOAA
- › Urban Flood Mitigation using Nature-Based Solutions: The Tietê River in São Paulo City - UGA & USP
- › A Modeling Framework for Analyzing Contaminated Sediment Transport under Extreme Flood - SRNL
- › Integrating Coastal and Riverine Natural Infrastructure to Reduce Multi-Flood Hazards - N-EWN

Other project participations:
- › Coastal Flood Modeling in Brunswick, GA - Sea Grant
- › Compound Flood Mitigation through Local Knowledge for Water Equity in Puerto Rico - NSF

Advisor: Dr. Felix Santiago-Collazo

São Paulo State University (UNESP), Brazil
Graduate Research Assistant – M.S. Program — Mar 2019 - May 2022

Thesis project:
- › The identification of Functional Urban Regions in Brazil based on spatial analysis of population distribution and commuting trips

Advisor: Dr. Gustavo Garcia Manzato

Undergraduate Research Intern – B.S. Program — Jun 2018 - Jan 2019

Member of the research group Transportation Studies Center (NET)
Research project:
- › Quality Indicators for Bauru's Public Transportation - partnership with Bauru's City Hall

Advisors: Dr. Barbara S. Bezerra, Dr. Gustavo G. Manzato, Dr. Anna S. P. Peixoto

Undergraduate Research Assistant – B.S. Program — Aug 2017 - Jul 2018

Undergraduate research project:
- › The identification of Functional Urban Regions in Brazil based on spatial analysis of population distribution

Advisor: Dr. Gustavo Garcia Manzato

INVOLVEMENT EXPERIENCE

Environmental & Water Resources Institute (EWRI), GA Professional Chapter
Co-chair — Aug 2026 - present
Program Coordinator — Aug 2025 - June 2026
American Society of Civil Engineers (ASCE) – EWRI Georgia Chapter

Society of Women Engineers (SWE)
Member — Apr 2025 - present

Clarke Middle School STEM Fair and Family Night
Exhibit Presenter Dec 2025
IRIS Laboratory presents the Flood Sensor and the Coastal Flooding Display and Hands-on
Clarke Middle School, Athens, GA, USA

ACADEMIC EXPERIENCE

University of Georgia (UGA), USA

- **Lecture Speaker** Oct 2026
  "Assessing Compound Flooding in the St. Johns River System, Florida"
  Course: ENVE 4410 - Open Channel Hydraulics
- **Lecture Speaker** Sep 2024, Feb 2024, Nov 2023
  "An overview of drought hazards: Brazilian Pantanal 2019-2020"
  Course: FYOS1001 – The Love-Hate Relationship between Water and the Humanity
- **Poster Judge** Jul 2024
  Young Scholars Program (YSP) Research Symposium
- **3-Minute-Thesis Competitor** Feb 2024
  "Combining coastal and riverine nature-based solutions for flood-resilient estuaries"

São Paulo State University (UNESP), Brazil

- **Teaching Assistant** Aug - Dec 2019
  Course: "Hydraulic Installations and Basic Sanitation"
  Advisor: Dr. Ana F. V. Pontes de Moraes, Civil and Environmental Engineering Graduate Program
- **Academic Workshop Speaker** Mar 2019
  Lecture "Quality Indicators for Public Transportation"
  "Quality Indicators for Public Bus Transportation" workshop - Transportation Studies Center (NET)
- **Event organization Team Member** Mar 2019
  Lecture "Quality Indicators for Public Transportation"
  "Quality Indicators for Public Bus Transportation" workshop - Transportation Studies Center (NET)
- **Undergraduate Entrepreneurship Project Director** Mar 2015 - Feb 2017
  People Management Office, ProJunior - Projects and Consulting in Engineering and Architecture

SCHOLARSHIPS AND AWARDS

UGA Research Institute (UGARI) Assistantship Fall 2025 – Summer 2027
Sponsored by the Savannah River National Laboratory (SRNL)
Savannah River National Laboratory (SRNL), Aiken, SC, USA

100K Strong in the Americas Innovation Funding 2025
Partners of the Americas, Association of International Educators - NAFSA, U.S. Department of State
University of Georgia (UGA) - USA, University of Sao Paulo (USP) and SENAI - Brazil

Confluence: Graduate Water Research Poster Contest Oct 2024
3rd Place Award
River Basin Center, University of Georgia (UGA), Athens, GA, USA

John Spencer Research Grants Fellow 2024
River Basin Center, University of Georgia (UGA), Athens, GA, USA

Graduate Research Assistantship Fall 2024 – Spring 2026
Sponsored by the Network for Engineering With Nature (N-EWN)
University of Georgia (UGA), Athens, GA, USA

Graduate Research Assistantship Fall 2023 – Summer 2024
Sponsored by the Compound Inundation Team for Resilient Applications (CITRA)
University of Georgia (UGA), Athens, GA, USA

Excellence Recognition Award - summa cum laude Aug 2019
2nd highest GPA of the class of 2019

Civil Engineering Undergraduate Program, São Paulo State University (UNESP), Bauru, SP, Brazil

Undergraduate Research Assistantship Aug 2017 - Jul 2018

Institutional Undergraduate Research Scholarship Program (PIBIC) by CNPq, Brazil
Civil Engineering Undergraduate Program, São Paulo State University (UNESP), Bauru, SP, Brazil

Undergraduate Academic Merit

Outstanding performance during the second semester of 2016 Jun 2017
Outstanding performance during the second semester of 2014 May 2015
Civil Engineering Undergraduate Program, São Paulo State University (UNESP), Bauru, SP, Brazil

PUBLICATIONS

Manuscript in Review and Preparation

Iannone-Tarcha L., Santiago-Collazo F.L. “Quantifying Wind-Driven Hydrodynamic Effects in Low-Gradient Estuary Systems with In-Line Lakes under Compound Flood Events” (Under Review).

Iannone-Tarcha L., Manzato G.G. "The identification of Functional Urban Regions in Brazil based on spatial analysis of population distribution and commuting trips" (Manuscript in Preparation).

Conference Proceedings

Tarcha L.I., Manzato G.G. "Functional Urban Regions in Brazil: a spatial analysis applied to commuting trips and population distribution" (In Portuguese). 33rd Conference on Research and Education in Transportation (ANPET), Balneário Camboriú, SC, Brazil, 2019.

Tarcha L.I., Manzato G.G. "Functional Urban Regions in Brazil: a spatial analysis applied to population distribution" (In Portuguese). II National Symposium of Urban Management and Engineering (SINGEURB), Polytechnic School of the University of São Paulo (USP), São Paulo, SP, Brazil, 2019.

Souza V.L.C., Tarcha L.I., Mariano E.B., Manzato G.G. "The use of socioeconomic data to define Functional Urban Regions" (In Portuguese). XXVI Symposium of Production Engineering (SIMPEP), School of Engineering of the São Paulo State University (UNESP), Bauru, SP, Brazil, 2019.

Book Publication

Bezerra B.S., Manzato G.G., Peixoto A.S.P. "Quality Indicators for Public Bus Transportation - volume 1" (In Portuguese). 1st edition, 92p, College of Engineering (FEB), São Paulo State University (UNESP), Bauru, SP, Brazil, 2020. ISBN 978-85-64472-10-5. (As a member of the research group Transportation Studies Center (NET), UNESP, Bauru, SP, Brazil)

CONFERENCE ACTIVITY

Oral Presentations

Iannone-Tarcha L., Santiago-Collazo F.L., Schmidt J., Collins E. “Assessing lake contribution to compound flood water levels in complex estuarine systems”. Georgia Water Resources Conference (GWRC), UGA River Basin Center, Athens, GA, USA, Mar 2025.

Iannone-Tarcha L., Santiago-Collazo F.L. “Green Solutions for Gray Spaces: Building Flood Resilience through Community Engagement in São Paulo City, Brazil”. Conference on the Americas, University of Georgia, Athens, GA, USA, Feb 2025.

Iannone-Tarcha L., Santiago-Collazo F.L. “Towards an operational compound flood model for the St. Johns River”. Climate and Water Research Slam – River Basin Center, University of Georgia, Athens, GA, USA, 2024.

Tarcha L.I., Manzato G.G. "Functional Urban Regions in Brazil: a spatial analysis applied to commuting trips and population distribution" (In Portuguese). 33rd Conference on Research and Education in Transportation (ANPET), Balneário Camboriú, SC, Brazil, 2019.

Tarcha L.I., Manzato G.G. "Functional Urban Regions in Brazil: a spatial analysis applied to population distribution" (In Portuguese). II National Symposium of Urban Management and Engineering (SINGEURB), Polytechnic School of the University of São Paulo (USP), São Paulo, SP, Brazil, 2019.

Poster Presentations

Iannone-Tarcha L., Santiago-Collazo F.L., Schmidt J., Collins E. “Wind Effects on Inline Lakes under Compound Flooding: A Case Study for the St. Johns River, Florida”. American Geophysical Union (AGU) Annual Meeting, New Orleans, LA, USA, Dec 2025.

Iannone-Tarcha L., Santiago-Collazo F.L., Schmidt J., Collins E. “Assessing Compound Flood Hydrodynamics in Estuarine Inline Lakes: A Case Study of the St. Johns River, Florida”. Confluence: Graduate Water Research Poster Contest, River Basin Center (RBC), Athens, GA, USA, Nov 2025.

Iannone-Tarcha L., Santiago-Collazo F.L., Schmidt J., Collins E. “Forecasting Compound Floods in Complex Low-Gradient Estuaries: A Case Study for the St. Johns River, Florida”. American Geophysical Union (AGU) Annual Meeting, Washington, DC, USA, Dec 2024.

Iannone-Tarcha L., Santiago-Collazo F.L. “Towards an Operational Compound Flood Forecasting Model: A Case Study for the St. Johns River, Florida”. Confluence: Graduate Water Research Poster Contest, River Basin Center (RBC), Athens, GA, USA, Oct 2024.

Iannone-Tarcha L., Santiago-Collazo F.L. “Nature-based Solutions under Compound Flood Events”. Center for Innovation in Risk-Analysis for Climate Adaptation and Decision-Making (CIRCAD), Atlanta, GA, USA, Sep 2024.

Iannone-Tarcha L., Santiago-Collazo F.L., Martins R.S. “Green Solutions for Gray Spaces: A Case Study of the Tietê River in São Paulo City, Brazil”. Network for Engineering With Nature (N-EWN) Partner Symposium, St. Augustine, FL, USA, May 2024.

Iannone-Tarcha L., Santiago-Collazo F.L., Martins R.S. “Practical solutions for complex problems: a holistic flood resilience study for the Tiete River in Sao Paulo, Brazil”. Conference on the Americas, University of Georgia, Athens, GA, USA, Feb 2024.

Iannone-Tarcha L., Santiago-Collazo F.L. “Urban flood mitigation using Nature-based Solutions: the Tiete River in Sao Paulo city”. IRIS Industry Summit, University of Georgia, Athens, GA, USA, Nov 2023.

Iannone-Tarcha L., Santiago-Collazo F.L. “Urban flood mitigation using Nature-based Solutions: the Tiete River in Sao Paulo city”. Confluence: UGA Water Science and Policy Poster Symposium, University of Georgia, Athens, GA, USA, Oct 2023.

Tarcha L.I., Manzato G.G. "The identification of Functional Urban Regions in Brazil based on spatial analysis of population distribution" (In Portuguese). 30th Undergraduate Research Conference of UNESP (CIC), São Paulo State University (UNESP), Bauru, SP, Brazil, Sep 2018.

Event Assistance

- **Volunteer assistant**
  “2025 Georgia Water Resources Conference (GWRC)”, UGA River Basin Center, Athens, GA, USA, Mar 2025
- **Rapporteur**
  “International Conference: Navigating the Complexities of Compound, Multi-hazard, and Cascading Events Impacts on Water Security”, Florida International University (FIU), UNESCO, and University of Brasilia (UnB), online event, Nov 2024
- **Volunteer assistant**
  “First National Nature Assessment (NNA1) – Public Engagement Event”, U.S. Global Change Research Program and UGA, Athens, GA, USA, Oct 2024

INDUSTRY EXPERIENCE

Hocaff Engineering Company, Agudos, SP, Brazil

Civil Engineer Aug 2019 - Jan 2022

Civil Engineering Intern Nov 2018 - Jul 2019

Responsible for internal coordination and execution of sanitation projects such as:

› Urban drainage
› Hydrologic study of large watersheds
› Hydraulic design of stormwater channels, reservoirs, and pumping stations
› Hydraulic modeling of stormwater drainage channels
› 3D modeling
› Elaboration of municipal sanitation plan (diagnosis, prognosis, actions, and control mechanisms)
› Water supply and sanitary sewage collection for small lots

Odontoclinic, Jau, SP, Brazil
General Dental Surgeon Jun - Jul 2014
Preventive Care and Exams, General Evaluation for Treatment Plan, and Restorative Procedures

SOFTWARE SKILLS

Hydrology, Hydraulics, 3D modeling, and GIS:

› ArcGIS Pro
› ArcMap
› QGIS
› Terraview - National Institute for Spatial Research (INPE), Brazil
› HEC-HMS - Hydrologic Engineering Center, US Army
› CAbc Hydrological simulation of complex watersheds - Hydraulic Technology Center Foundation (FCTH), Brazil
› HEC-RAS - Hydrologic Engineering Center, US Army
› HY-8 Culvert Hydraulic Analysis Program - US Department of Transportation, Federal Highway Administration
› ADCIRC
› Autodesk Civil 3D
› Autodesk AutoCAD

Programming:

› Linux
› MATLAB
› Languages: C, C++

INTERNATIONAL EXPERIENCE

Project Assistant Aug 2025
"Co-developing Actions and Tools for Compounding Hazard", NSF-CHIRRP
Flood Advisory Board Kickoff Meeting, Polytechnic University of Puerto Rico, San Juan, Puerto Rico
Meeting with the Caribbean Center for Rising Seas, San Juan, Puerto Rico
Visit to Juana Matos Community and Natural Reserve Las Cucharillas, San Juan, Puerto Rico

Global Volunteer Jan - Mar 2018
AIESEC Leadership Development Experience tackling the 17th Sustainable Development Goal "Partnerships for The Goals"
Artisanal Graphics (Grafica Artesanal), Buenos Aires, Argentina

English Course Nov 2007 - Jan 2008
Advanced and Master's levels completed
ELS Language Centers, Toronto, ON, Canada

LANGUAGES

Portuguese: native | English: fluent | French: intermediate | Spanish: basic