Stanford

Gustavo A. Araujo R.

Ph.D. Student in Civil and Environmental Engineering, admitted Winter 2023

Curriculum Vitae available Online

Bio

BIO

I am a PhD student in Civil Engineering working at the John A. Blume Earthquake Engineering Center at Stanford University.

My research interests include nonlinear finite-element modeling, seismic hazard, fragility, and risk analysis of civil structures.

I received my BS and MS in Civil Engineering degree from Universidad del Norte in Barranquilla, Colombia. During my time in Colombia, I worked with Prof. Carlos A. Arteta researching on reinforced concrete shear wall buildings and masonry-infilled moment-resisting frames.

In 2020, I moved to the United States to pursue a MS in Wood Science at Oregon State University. At OSU, I worked with Profs. Barbara G. Simpson, Andre R. Barbosa, and Arijit Sinha on the experimental testing and numerical modeling of a three-story mass timber building.

I have been an active member of the Earthquake Engineering Research Institute's Student Leadership Council (EERI SLC) since 2022. The EERI SLC is the major responsible for the organization of the Seismic Design Competition that gathers undergraduate student contestants across the world every year.

HONORS AND AWARDS

- PEER Lightning Talks Contest (Runner-up), University of California, Berkeley (2023)
- PEER Pitches Contest (Winner), University of California, Berkeley (2022)
- Cum Laude Distinction (MS Thesis), Universidad del Norte, Barranquilla, Colombia (2021)
- Tallwood Design Institute Fellowship, Oregon State University, Corvallis, OR, United States (2020 - 2022)
- Diversity Scholar Recruitment Award, Oregon State University, Corvallis, OR, United States (2020)
- Provost's Distinguished Graduate Scholarship, Oregon State University, Corvallis, OR, United States (2020)
- Diploma for Graduate of Excellence, Universidad del Norte, Barranquilla, Colombia (2018)
- French Language Seedbed Program, Universidad del Norte, Barranquilla, Colombia (2016 - 2017)
- Orgullo Caribe Scholarship, Universidad del Norte, Barranquilla, Colombia (2013 - 2017)

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

- Lead SDC Chair, EERI Student Leadership Council (2023 - present)
- SDC Chair, EERI Student Leadership Council (2022 - 2023)

EDUCATION AND CERTIFICATIONS

- MS, Oregon State University, Corvallis, OR, United States , Wood Science (2023)
- MS, Universidad del Norte, Barranquilla, Colombia , Civil Engineering (2021)
- BS, Universidad del Norte, Barranquilla, Colombia , Civil Engineering (2018)

LINKS

- My website: http://garaujor.su.domains/

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Seismic hazard and risk analysis.

Nonlinear finite-element modeling of civil structures.

Reinforced concrete wall buildings and moment-resisting frames.

Hybrid mass timber-steel systems.

Professional

WORK EXPERIENCE

- Graduate Research Assistant - Stanford University (January 2023 - present)
- Graduate Research Assistant - Oregon State University (January 2020 - December 2022)
- Graduate Teaching Assistant - Universidad del Norte (July 2018 - November 2019)
- Graduate Research Assistant - Universidad del Norte (January 2018 - November 2019)
- PEER Summer Intern - University of California, Berkeley (June 2017 - July 2017)
- Engineer in Training - Ingenia Structural Co (March 12, 2018 - July 30, 2019)

Publications

PUBLICATIONS

- **Hybrid approach for simulating shear-flexure interaction in RC walls with nonlinear truss and fiber models** *BULLETIN OF EARTHQUAKE ENGINEERING*
  Arteta, C. A., Araujo, G. A., Torregroza, A. M., Martinez, A. F., Lu, Y.
  2019; 17 (12): 6437-6462

- **Response of Mid-Rise Reinforced Concrete Frame Buildings to the 2017 Puebla Earthquake** *EARTHQUAKE SPECTRA*
  Arteta, C. A., Carrillo, J., Archbold, J., Gaspar, D., Pajaro, C., Araujo, G., Torregroza, A., Bonett, R., Blandon, C., Fernandez-Sola, L. R., Correal, J. F., Mosalam, K. M.
  2019; 35 (4): 1763-1793

PRESENTATIONS

- Design Procedure for Pivoting and Rocking Mass Timber Walls with Controlled Overturning Moment - 2023 PEER Annual Meeting (August 24, 2023)
- Cyclic Testing and Numerical Modeling of a Three-Story Mass-Timber Building with a Pivoting Mass Ply Panel Spine and Buckling-Restrained Energy Dissipators - 2023 World Conference on Timber Engineering (June 21, 2023)