CAROLINA PÉREZ MÉNDEZ |

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EDUCATION

Bachelor's Degree in Environmental Design - Architecture Mayor	Aug 2019 - Present
Completed Minor Degree in Resilient Infrastructure and Sustainable Environment (RISE UP)	Aug 2021- Dec 2023

Expected Graduation Date: May 2024
GPA (major and cumulative): 4.0
University of Puerto Rico, Río Piedras Campus

PROFESSIONAL TRAINING

◦ Social and Behavioral Responsible Conduct of Research - Citi Program	Jun 2022
◦ Social & Behavioral Research-Basic/Refresher-Citi Program	Sept 2021
◦ Introduction to LEED v4 - Measuring for Success - U.S. Green Building Council	Nov 2021

RESEARCH EXPERIENCE

Massachusetts Institute of Technology (MIT) Summer Research Program (MSRP) 2023, Boston
MIT Urban Risk Lab summer researcher   Jun 2023 - Aug 2023
- ◦ Conduct risk-targeted research in one of the most prestigious universities in the USA, under the supervision of Miho Mazereeuw and Mayank Ojha.
- ◦ Worked on improving flood risk communications through interactive data visualization.
- ◦ Leveraged Mapbox GL JS to create an interactive 3D flood map of the MIT campus.
- ◦ Designed an intuitive and user-friendly interface for interacting with the 3D flood map.
- ◦ Provided comprehensive documentation on our methodology and results.
- ◦ Published the research to a personal GitHub page to help other web developers with their visualization techniques.

Massachusetts Institute of Technology (MIT) Summer Research Program (MSRP) 2022, Boston
MIT Urban Risk Lab summer researcher   Jun 2022 - Aug 2022
- ◦ Conducted research under the supervision of Miho Mazereeuw and Larisa Ovalles.
- ◦ Created two risk profiles of two flood-affected municipalities in PR: Mayagüez and Humacao.
- ◦ Gathered stakeholder information to create a map indicating community organizations in PR.
- ◦ Mainly used Geographical Information Systems to execute the research.
- ◦ Collaborated with other researchers and experts in their fields from different disciplines.
- ◦ Published research called "Risk Adaptive Design Across Scales" through ArcGIS Storymaps.
- ◦ Access research: Risk Adaptive Design Across Scales (arcgis.com)

Rapid Visual Screening Clínica Yagüez RISE UP Case Study   Sept 2021 - Nov 2021
Architecture Student Researcher
- ◦ Studied the building's exterior, plans, structure, and history.
- ◦ Conducted a FEMA P-154 RVS to determine if the clinic was potentially dangerous during an earthquake. Consulted and collaborated with graduate students, architects, and engineers.

"White Area, An Unsolved Controversy" RISE UP Case Study   Aug 2021 - Sept 2021
Architecture Student Researcher
- ◦ Investigated a serious flood problem in the main parking lot of the UPRM campus. Reported causes and found solutions to mitigate its harmful effects.
- ◦ Studied site, environmental, and existing conditions. Conducted research based on reliable resources and meetings with professors and grad students.
- ◦ Worked as a team leader providing solutions, management, and suggestions.
- ◦ Detailed, documented, and uploaded the work as evidence to a program called Irene.

WORK AND LEADERSHIP EXPERIENCE

Student Council of the School of Architecture of UPRRP   April 2023 - Present
President
- ◦ Serves as the primary representative of the student body to the school's administrators, professors, and other stakeholders.
- ◦ Organize student assemblies to address student concerns and issues, and collaborate with council members to develop solutions and advocate for change when necessary.
- ◦ Work with other council members to plan and execute events, initiatives, and projects that benefit the student body.

3D Design Lab Álvarez-Díaz & Villalón

Architecture Student Intern   Jan 2023 - May 2023
- Worked in an interdisciplinary collaborative environment
- Created prototypes using 3D printers and laser cutters to determine the value and functionality of a design
- Communicated AD&V's visions to clients by developing true-to-life visualization and providing an interactive experience among the designers and clients.

Student Council of the School of Architecture of UPRRP   Sept 2022 -March 2023

Vice President
- Acted as second in command to the CEEA President.
- Started initiatives that help the student body and overlook problems with students and administration.

Student Council of the School of Architecture of UPRRP   Nov 2021 - May 2022

Representative of the Structures and Technology Committee
- Collaborated with other students to impact our school community and provided a means for student expression.
- Created a free student tutoring program and assisted in school affairs by participating in conferences and school events. Helped solve individual dilemmas regarding the two courses between students and administration.

"Rehabilitation of Bathrooms in Sports Complex" Flores Kearns, PSC I UPRRP   Summer 2021

Architectural Designer Intern
- Researched ideas for an inclusive bathroom for people from different races, genders, social classes, cultures, ages, and people with disabilities.
- Collaborated with other colleagues to design and execute detailed architectural plans, diagrams, and tridimensional modeling.
- Conducted site visits, created as-builts, and presented the final product to the planning committee.

PROJECTS

"Emergency Housing for Flood Water Management: The Case Study of Barrio Playa, Añasco"   Jan 2023 - Present

Research Student Undergrad Honor Dissertation
- Develop specialized emergency housing units that cater to the community's needs and could address challenges associated with flooding, including sea-level rise, intense flooding, storm surges, and soil liquefaction.
- Study the increasing frequency and intensity of flooding events in Puerto Rico, particularly in the Barrio Playa neighborhood, as a significant issue. I recognized the socio-economic losses and social challenges posed by hydrological disasters in this area.
- Conduct a comprehensive examination of the factors contributing to flood formation. This included analyzing factors such as precipitation, drainage basin inadequacies, and drainage blockages.
- Utilize Geographical Information System (GIS) technology to create maps that assess vulnerable flood zones. These maps integrated various impact indicators, including social, economic, health, and environmental factors.
- On-site assessment and community collaboration.

"Shoreline Hotel" UPRRP   Jan 2022 - May 2023

Architectural student designer
- Responsible for designing a hotel from conceptualization to detailed planning.
- Developed comprehensive architectural plans.
- Utilized various architectural software and tools to create 2D and 3D models, renderings, and presentations that effectively conveyed design concepts to stakeholders.
- Addressed architectural challenges and design issues, finding practical solutions to ensure the feasibility and functionality of the hotel.

"Portal to the City: Reviving Santurce" UPRRP   Jan 2022 - May 2023

Architectural student designer
- Collaborated with two of my peers in this urbanistic and architectural project aimed at transforming a two-block area that historically divided social classes.
- Conducted comprehensive site visits and interviews with residents to gain a deep understanding of the neighborhood's dynamics, strengths, and challenges. And incorporated residents' ideas into the project to ensure that it met their needs and aspirations.
- Integrated sustainable elements into the project, such as green spaces, rainwater harvesting systems, solar panels, and energy-efficient lighting, to promote environmental sustainability.
- Contributed to the design of multi-story apartment buildings that provided affordable, well-designed housing options, emphasizing communal spaces and shared amenities to create a sense of community.

"Special Law for Rehabilitation of Rio Piedras" UPRRP I Fideicomiso   Aug 2021 - Nov 2021
Architectural student designer
  - Proposed architectural designs to improve neighborhood conditions by cultural and economic means through household. Worked on the plans for basic housing units for the use of students and residents of the lower or middle class, offering quality space and comfort for users.
  - Designed apartments for people with disabilities with all codes and parameters in place.
  - Conducted site visits and meetings with clients.

SKILLS & RELEVANT COURSEWORK

Skills and Abilities: Rapid learner, responsible, problem-solver, leader, time-efficient, creative, organized, innovative, observative, communicative, available to work all shifts, and team worker.
Tools: MS Office (Word, Excel, and Powerpoint), AutoCAD, Adobe Creative Cloud (Photoshop and Illustrator), Sketchup, Vray, Enscape, Twinmotion, Revit, Rhino, Geographical Information System (Qgis, ArcGIS, Mapbox), HTML, and Javascript.
Languages: Spanish (Native Language), English (Full Professional Proficiency), and French (additional learning language).
Relevant Coursework:
  - Design Fundamentals I & II; Elemental Arch. Design I & II; Intermediate Arch. Design I & II; and Advanced Arch. Design I & II
  - Technology I, II, and III
  - Structures I, II, & III
  - History of Architecture I, II, & III
  - Fundamentals of Integrated Practice for Resilient and Sustainable Infrastructure
  - Sustainable Construction

STUDENT ORGANIZATIONS

  - Student Council of the School of Architecture of UPRRP   Nov 2021 - Present
  - National Society of Leadership and Success (NSLS)   Oct 2020 - Present
  - Honors Studies Program (PREH) of UPRRP   Aug 2020 - Present

AWARDS & SCHOLARSHIPS

  - Grant of Honor, UPRRP   Dec 2019 - Present
  - MIT MSRP 2023   Summer 2023
  - 2023 Emerging Research National Conference Travel Award   Feb 2023
  - RISE UP - National Science Foundation Award   Aug 2021 - May 2023
  - MIT MSRP 2022   Summer 2022

SPECIAL RECOGNITIONS

  - Invited Jury for the Freshmen's final architecture project   Oct 2022
  - NHEI REU University of Berkley California   Mar 2022