# MARIA CORINA PORADA, P.E.

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| ED | UCA | 111 | UIN        |

| EDUCATION   |                |
|---|----------------|
| UNIVERSITY OF DELAWARE, Newark, DE <b>Ph.D Student in Civil Engineering,</b> Concentration in Civil Infrastructure Systems        | 2021 - present |
| CORNELL UNIVERSITY, Ithaca, NY Master of Science in Civil Engineering, Concentration in Structural Engineering                    | 1999 - 2002    |
| JOHNS HOPKINS UNIVERSITY, Baltimore, MD <b>Bachelor of Science in Civil Engineering</b> , Concentration in Structural Engineering | 1995 - 1999    |

#### RESEARCH EXPERIENCE

University of Delaware, Newark, De

2021 - present

#### Research Assistant

**Project:** LEAP-HI: An Interdisciplinary Approach to Modeling Multiple Stakeholder Decision Making to Reduce Regional Natural Disaster Risk

Advisor: Dr. Rachel Davidson, Ph.D., Department of Civil Engineering

• Model household decision-making as it relates to mitigative action prior to a hurricane event by implementing a multi-state Markov model to predict decision stage transitions and factors affecting these transitions

## **Teaching Assistant**

CIEG 320: Soil Mechanics and Foundation Engineering

CIEG 323: Soil Mechanics Lab

#### PROFESSIONAL EXPERIENCE

PICKERING FIRM, Memphis, TN

2015 - 2020

# Senior Structural Engineer

Analysis, Design, and Inspection

- Design new buildings, building expansions, retrofit work on existing buildings, and miscellaneous structures
- Analyze existing structures for new loading/use or for reduced capacity due to damage or deterioration
- Prepare construction documents including drawings and technical specifications for permit and bid
- Inspect existing structures to assess structural condition
- Prepare inspection reports summarizing observations, load rating analysis if applicable, conclusions, and recommendations for continued or future use

## Construction Administration

- Respond to questions by contractor or client to address unforeseen problems encountered in the field
- Review shop drawings and submittals

## Mentorship/Student Outreach

- Whitehaven Elementary 2018 STEM Expo
- St. George's Career Day at Pickering

2013 - 2014

# JOHNSON, MIRMIRAN, AND THOMPSON, Sparks, MD

## Structural Engineer

Analysis, Design, and Inspection

- Designed new structures and retrofit work on existing buildings
- Performed load rating analysis for existing structures
- Inspected existing structures to assess structural condition
- Prepared inspection reports summarizing observations, conclusions, and recommendations for continued or future use

#### MOFFATT & NICHOL, Baltimore, MD

2003 - 2009

## Marine Structural Engineer

Analysis and Design

- Designed new waterfront structures, repairs for the rehabilitation of existing waterfront structures, and miscellaneous land-side structures
- Conducted 12-month monitoring program to determine efficacy of a repair to deteriorating concrete piles
  Collected and analyzed data. Prepared report summarizing results and recommended the repair for
  strengthening other piles exhibiting similar characteristics
- Rated numerous existing waterfront structures for load capacity and prepared reports summarizing analysis, results, and design recommendations
- Prepared construction documents including drawings, technical specifications, and cost estimates for permit and bid

#### Inspection

- Inspected existing waterfront structures topside and at water level to assess structural condition
- Prepared reports summarizing observations and repair recommendations as needed to halt continued deterioration and restore original load capacity of structures

## Construction Oversight

- Collaborated with contractors to oversee construction of waterfront and land-side projects by conducting regular site visits, responding to contractor questions, and addressing problems encountered in the field.
- Facilitated communication among contractor, client, and design team through regular progress meetings
- Reviewed shop drawings and submittals

## Project Management

- Directed several government and private construction projects through design, bid, and construction phases
- Assessed and met evolving needs of client, Maryland Port Administration (MPA), resulting in two open-ended repair contracts for miscellaneous port facility repairs. Collaborated closely with client to develop scope of work and cost estimate for each repair type.
- Worked closely with operations personnel to minimize impact on ongoing activities surrounding construction site (i.e. vessel loading/unloading, warehouse operations, etc.)

2002 2000

2001 - 2003

PARSONS BRINCKERHOFF, Pittsburgh, PA

# **Engineer in Training**

Analysis, Design and Inspection

- Designed/analyzed miscellaneous structural components
- Prepared cost estimates for projects
- Reviewed shop drawings
- Assisted in bridge inspections

## **PROFESSIONAL LICENSES**

PROFESSIONAL ENGINEER, State of Maryland

Expiration: Jan. 2026

## **DESIGN SOFTWARE**

STAAD Pro, Ram Elements, Enercalc, AutoCAD, Revit

## **OTHER SOFTWARE**

ArcGIS

## **PROGRAMMING LANGUAGES**

Python, R

## **VOLUNTEER ENGAGEMENTS**

WSE Mentoring Program, Johns Hopkins University, 2019 to present

WSE Alumni Leadership Committee, Johns Hopkins University, 2018 to present