

## SUMMARY

As a Structural Engineering graduate with **three years of professional experience** in the structural and civil engineering industries in both the United States and Nepal, I have contributed to a wide range of projects involving structural analysis and the design of prestressed concrete bridge components, shallow and deep foundations, cost estimation, and building design. In addition, I have one year of research experience, including work in wind engineering. I have also overseen construction projects and provided hands-on technical support in challenging field environments.

## EDUCATION

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### M.S. in Civil Engineering (Structures)

August 2023 - December 2024

*Florida International University, Miami, Florida*

**Current GPA:** 3.81/4.00

Conducted independent research with Associate Prof. Dr. Ioannis Zisis in Wind Design of Eco-friendly Bus-Shelter

**Courses Highlights:** Structural Dynamics, Wind Engineering, Sustainable Building, Prestressed Concrete, Timber Design, Highway Bridge Design, Statistical Analysis of Wind Engineering Data, Advanced Structural Analysis

### B.S. in Civil Engineering

January 2015 - December 2019

*Tribhuvan University, Kathmandu, Nepal*

GPA: 3.59/4.00

Conducted independent project with Asst. Prof. Amrit Man Tuladhar in Earthquake Resistant Design of 7-Storey Residential Building

Minor Degree: Transportation Engineering

## SKILLS

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**Structural Analysis Tools:** SAP 2000, ETABS, RISA 3D, STAAD Pro, CSI Bridge, MIDAS Civil, LPile, FB-MultiPier, LEAP Bridge (RC-Pier, Conspan), OpenBrIM

**Design and Drafting Tools:** AutoCAD, MicroStation, Autodesk Revit

**Reporting Tools:** MS Office Suite

**Industry Knowledge:** Architectural Planning, Building Design, Bridge Design, Technical Writing, Design Drawings, Data analysis, Site Visits and Investigations

**Design Codes:** ASCE/SEI 7-22, PCI, ACI, AASTHO LRFD, NDS, SDPWS, AISC, IBC, AWC ASD-LRFD, FDOT Design Manual (FDM), FDOT Structures Manual

**Leadership:** Team Leadership, Project Management, Procurement, Collaboration, Report Writing

## PROFESSIONAL EXPERIENCE

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### EAC CONSULTING, Miami, Florida

January 2025 – Present

- Developed bridge alignment layouts in accordance with FDOT standards, ensuring compliance with all superstructure and substructure design requirements, including geometric constraints, load considerations, and constructability criteria
- Produced detailed AutoCAD drawings, including geometric layouts, plan and elevation views, framing plans, and typical sections, adhering to applicable engineering codes, FDOT design criteria, and project-specific quality standards
- Utilized RC Pier software to perform comprehensive substructure design verification, extracting and analyzing reactions (moment, shear, and torsion) and validating performance under both scour and non-scour loading conditions
- Performed bridge load rating analyses in accordance with the FDOT Load Rating Manual, applying relevant methodologies and considering key parameters such as structural capacity, live load factors, material properties, and serviceability limits to ensure compliance and safety.

## **NHERI Wall of Wind (WOW) Experimental Facility (EF), College of Engineering and Computing (FIU), Miami, Florida**

### Research Assistant

August 2022 – Dec.2024

- Proficiency in working with multiple codes and standards such as ASCE/SEI 7 22, ACI
- Conduct research and involved in comprehensive testing using full-scale and scaled models to study the vibrations, dynamics, and wind engineering of solar panels used as roofing materials in building structures
- Investigating the impact of wind forces on structural integrity and performance of Photovoltaic Solar Panels
- Engaged in the preparation of the report writing and submission
- Assisted REU student with their research, including data post-processing, analysis, poster presentation, and report writing in summer 2024 at WOW facility
- Use of sensors, real-time data acquisition and large-scale data handling utilizing IoT of things

## **Koirala Homes, Bardibas, Nepal**

### Structural Engineer

January 2021 - December 2022

- Executed land development design for construction sites, structural design of concrete buildings, bridges and other structures according to the Nepal Building Code and Indian Standard
- Performed linear static and response spectrum analysis of residential and commercial buildings, small-span bridges, and culverts
- Assisted in the review and approval of construction drawings and documents
- Produced Technical drawings and Structural reports for submission to municipal and governmental authorities for Buildings and Bridges
- Estimated project costs and prepared spreadsheets for calculation of quantities for structural components buildings and bridges

## **Picasso Consultants, Lalitpur, Nepal**

### Structural Engineer

January 2020 - December 2021

- Gained familiarity with various aspects of civil engineering and planning, including proposal writing, research, design, and estimation of engineering works
- Engaged in fieldwork, presentations, and report writing through direct involvement in different projects and office interactions
- Received training in the use of various software such as Microsoft suites, MATLAB, Civil 3D, ETABS, CSI Bridge, RISA 3D, Revit, Robot Structural Analysis, and GIS for data entry, management, data presentation, design, analysis, mapping, and reporting
- Monitored field inspections and condition assessments of construction sites of buildings and bridges
- Completed field surveying (using a level and a total station), including topography survey using Arch GIS, including gathering and interpretation of survey data on Autodesk Civil 3D
- Surveyed and inspected geometric layout and alignment, calculated loads, modeled, analyzed, and designed 20–40-meter Department of Road (DOR) standard concrete girder and prestressed bridges, steel truss bridges (Built-up steel section/plates) using Bentley's CSI Bridge software.
- Developed skills in using software tools for civil engineering applications and project management

## **AWARDS AND RECOGNITIONS**

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- Awarded with NHERI Experimental Facility TF Scholarship for entire Master's program (4 semesters), Florida International University, Miami, Florida Award Amount (\$13,678.20) for academic excellence and potential research in the field of Wind Engineering (2023/08/08)
- Research Assistantship Stipend, Department of Civil and Environmental Engineering, Florida International University, Miami, Florida Award Amount (\$11,644.00) per year Includes subsidized health insurance plan worth \$2,728 annually, totaling \$14,372.00 annually. Awarded for facilitating research in Civil Engineering under Dr. Zisis

## **LEADERSHIP/AFFILIATIONS**

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- Active member, the American Society of Civil Engineers (ASCE) (since 2020)
- Presenter, Annual FIU Eye of Storm Hurricane Event, Museum of Discovery and Science, Fort-Lauderdale (2024)
- NHERI GSC Member, Florida International University (2024)

- Volunteer, Annual Wall of Wind Mitigation Challenge High School Competition, WoW Facility (2024)
- Member, National College of Engineering Civil Engineering Student's Society (2015-2019)
- Member, Nepal Engineers' Association (since 2019)

## **CERTIFICATIONS**

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- Fundamentals of Engineering (FE Civil) Exam of NCEES
  - Professional Engineering Certificate, Nepal Engineering Council, Reg. No. 24458 (2020-06-03)
  - Certification of Appreciation, Civil Model Competition (Hill Road and Budigandaki Hydro Project), YATRA 2.0, "A Journey Towards Innovation" organized by National College of Engineering, (2018-07-18)
  - Structural Analysis Program, National College of Engineering, Tribhuvan University (2018-06-21)
  - AutoCAD Certificate, National College of Engineering, Tribhuvan University
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## **REFERENCES**

Dr. Ioannis Zisis Associate Professor  
Co-Director, NHERI Wall of Wind (WOW) Florida International University  
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PI and Director, NHERI Wall of Wind (WOW) Florida International University  
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