

SUMMARY

- Master in Structural Engineering and Applied Mechanics, seeking a **full-time position** as a **Structural Engineer/Structural Design Engineer**, available to start working immediately.
- Experienced in engineering activities related to structural design such as drawing, engineering specification, design reviews, structural analysis, structural calculations, and report preparations.
- Capable of assisting design engineers of all experience levels in developing new designs and Improvements. And expertise in providing engineering assistance to various departments of an organization when needed.
- Proficient in identifying client requirements and coordinating with architects to develop a suitable design following design codes.
- Capable of working simultaneously on multiple projects, with excellent verbal, written, and interpersonal skills.
- 2 years of experience in mid-rise commercial and residential construction industries.

TECHNICAL SKILLS

Software: MicroStation, AutoCAD, Autodesk Revit, Civil 3D, BIM, ETABS, STAAD.Pro, SAP2000, CSiBridge, Abaqus/CAE, BridgeLink TxDOT PGSuper, Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Microsoft Outlook, RAM Structure, SketchUp, Mathcad, Risa-3D.

Design Codes: ASCE 7-16, ACI 318-19, AISC-2015, AISC Design Guides, TMS 402/602-16, IBC-18, AASHTO LRFD Bridge Design, TxDOT Bridge Specifications, PCI, NDS 2018, and SDPWS 2015.

EDUCATION

University of Texas at Arlington, Arlington, TX

Jan 2020 – Dec 2021

Master of Engineering, Structural Engineering, and Applied Mechanics.

GPA: 3.44/4.0

Relevant Coursework: Advanced Steel Design I, Advanced Steel Design II (Design of Steel Connections), Advanced Concrete Design, Advanced Mechanics of Materials, Introduction to Finite Element, Advanced Structural Analysis, Structural Masonry Design, Prestressed Concrete, Structural Timber Design, Design of Earth Structure.

Technocrats Institute of Technology, Bhopal, India

Aug 2013 – June 2017

Bachelor of Engineering, Civil Engineering.

GPA: 7.2/10.0

AREAS OF EXPERTISE

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| ▪ Structural Analysis | ▪ Steel Structures (AISC-2015) | ▪ AutoCAD |
| ▪ Building Code and Standards | ▪ Concrete (ACI 318-19) | ▪ MicroStation |
| ▪ Structural Calculations | ▪ Masonry (TMS 406/602-16) | ▪ Revit, BIM |
| ▪ Drafting and Drawing | ▪ Wood (NDS 2018) | ▪ Microsoft Office |

PROFESSIONAL EXPERIENCE

Rajeev Homes, Bhopal, India

Site Engineer

Oct 2017 – May 2019

Served full-time as site engineer at Rajeev Homes, a construction company that focuses on constructing mid-rise commercial and residential buildings.

- Performed Design Tasks, such as conceptual layouts, grading, and drainage associated with the project.
- On-site management and supervision of subcontractors, including coordination of works and procurement of materials. Able to provide the company with a 9% saving on the project budget.
- Involved in identifying and managing client requirements and expectations. Also, coordinated technical and administrative activities with other disciplines working on projects.

PTO

- Carried out a structural analysis using Revit, developed 2D designs using AutoCAD, and created detailed design reports using Microsoft office. Also, Supervised structural steel and reinforced concrete work.

Bharat Heavy Electricals Ltd, Bhopal, India

Civil Engineering Intern

July 2016 – Dec 2016

- Associated with the construction team to understand the construction drawings of structural steel and carried out the periodic inspection of the on-site steel and concrete work.
- Performed on-site field investigations and structural assessment of existing steel warehouses and townships.
- Prepared objective summary reports which are used in the completion of the project work and inspections.

PROJECT EXPERIENCE

Design prestressed concrete bridge with PGSuper, using AASHTO LRFD Bridge design specifications.

- Designed a multi-span pre-tension prestresses concrete bridge with I-type girders using appropriate tendon profile and strand layout, also created detailed design report with analysis results.
- The analysis is carried out using BridgeLink V6.1 (PGSuper) as per AASHTO HL-93 Loading and TxDOT specs.

Design a two-story community hall with structural timber.

- The timber structure is analyzed, and the critical member is being figured out. Then, the critical beam and critical column is described, and their structural ability is checked by providing hand calculation
- The designing steps are followed by the reference of NDS code and supplement. The calculation of live and dead load applied to the structure is carried out with the consideration of ASCE 7-16.

Steel connection design for different members and loads using LRFD.

- Two different FR moment connections (Directly welded flange connection and Flange tee stub bolted connection) are designed using SketchUP modeling, CAD Drawings, and all the limit states.
- Also, a simply supported beam with two different shear connections at both ends (Extend single plate bolted connection and double angle bolted connection) are designed using hand calculations and SketchUP.
- Similarly, one column base connection is designed to determine anchor rod size, slab plate dimensions, and shear transfer strength using AISC Design Guides.

Finite element analysis of different structural components using Abaqus/CAE.

- The truss, frame, plate, and solid concrete slab are analyzed. Having different working conditions are analyzed using finite element analysis.
- Provided with different mesh conditions and element types to get outputs and compared their accuracy.

Design a four-story steel residential building.

- Designed structural steel building as per AISC-15 and IBC-2015 and verified with manual calculations.
- Structural simulations and load analysis is done using ETABS, with design load following ASCE 7-16.

CERTIFICATIONS

- Engineer in Training (Civil), Texas November 2021
- Course on Climate change & Sustainable Development (EPCO Institute) Bhopal, India

PROFESSIONAL ACTIVITIES

- Member of American Society of Civil Engineers
- Member of American Wood Council
- Member of Structural Engineering Institute
- Member of American Concrete Institute