SAI ARJUN CHEVITIPALLI

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EDUCATION

Arizona State University, Tempe, AZ *Jan 2022 – Dec 2023*

- Master's (Civil, Environmental and Sustainable Engineering) - Major in Structures and Materials Engineering
  Courses: *Prestressed Concrete, Properties of Concrete, Developing Software Engineering Applications, Advanced Concrete Structures, Advanced Foundations, Advanced Mechanics of Materials, Advanced Soil Mechanics, Design of Composites for Infrastructure, Linear Algebra.*

Mahindra École Centrale, Hyderabad, India *Aug 2016 – Sep 2020*

- Bachelor's - Civil Engineering
  Courses: *Structural Analysis I & II, Structural Health Monitoring, Design of Steel Structures, RCC Design.*

PROFESSIONAL EXPERIENCE

Structural Engineering Intern, South Asian Infrastructure *Feb 2021 – Sep 2021*

- Supported design of concrete and steel structures with justifying structural calculations.
- Performed hand calculations for loads, stresses, bending moments and deflections at specific locations.
- Delivered Structural Engineering drawings, calculations, reports, sketches, and presentations.
- Used BIM (Revit structure, AutoCAD, ETABS, STAADPRO) for preparation of design drawings, plans and details.
- Coordinated structural design requirements with architectural, electrical, plumbing, and mechanical disciplines.

Civil Engineering Research Assistant, Mahindra École Centrale *Aug 2019 – Sep 2020*

- Created model of Thousand Pillar Temple in Autodesk inventor and simulated results for dead loads, wind loads and earthquake loads. Performed "Finite Element Analysis on Ancient Thousand Pillar Temple in Southern India"**.**
- Analyzed simulations using various statistical methods and wrote reports to summarize results.
- Published research paper at International Euro-Mediterranean Conference 2020 in a Digital Heritage journal.
- Link: *https://link.springer.com/chapter/10.1007/978-3-030-73043-7_41*

Structural Engineering Intern (Summer), All India Radio (AIR), Port Blair, Andaman & Nicobar Islands *May 2019 – Aug 2019*

- Evaluated and monitored structural health of old structures of AIR facility by observing deflection under loads.
- Suggested renovation, maintenance works needed to extend life of structure based on evaluations.
- Suggested demolishment of few structures which are not safe for use based on evaluations.
- Designed a new roof for AIR property which can withstand high wind speeds.
- Designed over-head tank to replace previously damaged tank.

Civil Engineering Intern (Summer) - Halcyon Luxury Residential Project, Phoenix Realtor Group, Hyderabad, India *May 2018 – Aug 2018*

- Assisted project engineers, project managers and senior managers to complete construction deliverables.
- Developed familiarity with federal, state, and local regulations as well as client practices.
- Coordinated activities with contractors, consultants, and architects.
- Ensured Planning, budgeting, scheduling activities, safety management and quality management protocols.

ACADEMIC PROJECTS

Finite Element Analysis, Arizona State University *Aug 2022 – Dec 2022*

- Created programs to analyze using finite elements the structural response to loading on planar & space trusses, Beams, planar & space frames, space beams and plate/shells in C++.
- Modelled and analyzed 4-storied building with dead load and live load in C++ using OOP.

Prestressed Concrete Bridge Design, Arizona State University *Jan 2022 – May 2022*

- Designed prestressed concrete cable profile for bridge deck using working stress method.
- Planned reinforcement for slab and web and found bursting reinforcements needed for web and flange.

RCC Bridge Health Assessment, Mahindra École Centrale *Aug 2019 – Aug 2020*

- In-depth analysis of the RCC Bridge to find the load carrying capacity of the bridge to maintain the structure's life.
- Measured stresses, strains & deflections at various points due to load applied using sensors. Also measured cracks.

Transmission Tower and Overhead tank, Mahindra École Centrale *Aug 2018 – Dec 2018*

- Modelled, analyzed transmission tower and overhead tank to measure stresses and displacements due to wind Load, dead load using STAAD PRO.

TECHNICAL SKILLS

- Autodesk Revit, AUTOCAD, STAAD PRO, ETABS, Ansys, RAM Concept, GS-USA Frame3D, AUTODESK Inventor, Navisworks, Bluebeam, C++ (Object-Oriented Programming), MATLAB, MS Office, and Google project management tools.