

VISHNU VARDHAN DANDU

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EDUCATION

Master of Science in Civil Engineering | University of Alabama at Birmingham

May 2023 – Dec 2024

Courses - Project management | Construction documents and liability | Wind & Steel structures | Green buildings & Sustainability | BIM.

SKILLS

Cost Estimation | Quality Control | Specifications & drawings review | Site Supervision & Inspection | Bid Proposals | Construction Safety | Storm Water Management | Change Order Review | Risk management | Project Coordination | Communication skills | Project management | Analytical Skills | Problem solving | Documentation | Seismic design | Construction Scheduling | Cost reports | Post Construction work | Project Delivery Methods

SOFTWARE PROFICIENCY

AutoCAD | Revit architecture | Primavera P6 | BIM | Procore | Civil 3D | Trello | Excel

CERTIFICATIONS

Occupational Safety and Health Administration (OSHA) 30-Hour | Nuclear Gauge Certification | CMIT (Construction Manager-in-Training) | ACI Certified | RTT Certified | BIM | Quantity Surveying Building Estimation with Excel & CAD | CPR Pro Certification | Civil 3D | Procore Certification

EXPERIENCE

CMT-1 Staff Engineer | United Consulting, Atlanta, USA

March 2025 – Present

- Performed geotechnical evaluations for bridge foundation investigations, retaining wall design, and soil surveys. Conducted field surveying and subsurface exploration, including coordinating and overseeing activities, soil sampling, and classification.
- Participated in environmental assessments during the preliminary phase of projects. Maintained daily work logs and contributed to technical report writing. Carried out construction materials testing and field inspections for soils, concrete, nuclear density gauge readings, reinforcing steel, and post-tensioning forces. Prepared field reports and calculations, while consistently adhering to OSHA safety standards and regulations.

Construction Engineer | Hima Sai Constructions, Hyderabad, India

October 2022 - March 2023

- Contributed to constructing of a 2-story commercial building complex of 25,000 sq.ft , by handling site preparation, material management, foundation work, quality control. Developed expertise in construction techniques, safety protocols and project management using AutoCAD, Excel and Civil 3D.
- Actively participated in all phases of construction, from initial site preparation and material procurement to execution and labor management, ensuring smooth project progression and timely completion within the scheduled timeframe.
- Assisted in pay applications, cost reporting & post-construction tasks like inspections, punch list reviews to ensure quality standards are met.
- Utilized Design-Bid-Build method and managed Lump-sum contract by ensuring clear communication with the cross – functional teams

Site Engineer Intern & Quality Control Engineer | GVK Constructions, Karimnagar, India

September 2021 – September 2022

- As a site engineer, supervised commercial and residential projects worth \$5 million, covering an area of 30,500 sq.ft, ensuring structural integrity, finishing quality and adherence to the design and safety standards. Used AutoCAD, STAAD. Pro for design review and analysis.
- Collaborated with a team of 14 engineers to uphold design and safety standards. Coordinated with senior management to plan and manage the construction schedules using Primavera P6, ensuring smooth workflow and contributing to the project success.
- Successfully managed two projects while working with QA/QC teams to verify the quality of work and materials met the project requirements. Established strong communication channels to address on-site challenges effectively.
- Reviewed and interpreted construction drawings and blueprints using AutoCAD and STAAD Pro by Guaranteeing adherence to project guidelines and design criteria. Oversaw all project phases from planning to execution, ensuring timely task completion.
- Teamed up with architects, engineers, and contractors to deliver two residential and commercial projects on time and within budget, leveraging Microsoft Project for seamless coordination.
- As a quality control engineer from June 2022 to September 2022, assisted in concrete mix design and quality testing to ensure compliance with project IS standards. Monitored and optimized material performance, including cement and aggregates, to enhance concrete strength and durability. Utilized MATLAB for data analysis.
- Supervised batching operations, ensuring precise material measurements and equipment calibration. Maintained detailed quality records using Microsoft Excel. Collaborated with suppliers and contractors to resolve quality issues and conducted audits using Procore.

RESEARCH PROJECTS

Designed and Analyzed a Circular Overhead Water tank using STAAD Pro

- This project entailed designing a 2 lakh-litre reinforced concrete circular water tank using STAAD Pro software to meet IS 3370 standards.
- Calculated loads developed structural models, and optimized reinforcement details to meet required standards and prepared project documentation and reports using Excel and Bluebeam Revu.

Sustainable Study on Permeable Concrete.

- Investigated the use of Bagasse Ash and Rice Husk Ash as partial cement substitutes to improve concrete sustainability and drainage efficiency. Contributed to a project aimed at lowering CO₂ emissions by incorporating agricultural waste into construction materials.
- Conducted strength, durability, and permeability tests using MATLAB to meet industry standards. Worked with faculty professionals on Microsoft teams and google workspace to explore environmentally friendly building solutions.

Designed Residential Building using BIM

- Designed and drafted 2D floor plans, elevations, and site plans using AutoCAD, emphasizing precision in dimensions, annotations, and layering. Transitioned to Revit for 3D modeling, integrating structural elements like walls, floors, roofs, and custom components.
- Developed detailed construction documents, including plans, sections, and elevations, and prepared print-ready sheets with title blocks. Created 3D visualizations and walkthroughs for project presentations.

PROFESSIONAL DEVELOPMENT

- Worked as a Supervisor of Operations Services (Part-time) at the University of Alabama at Birmingham at the Recreation center. Supervised daily operations, within the allocated timeframes using Trello. Led teams, resolved conflicts, and communicated effectively with staff & customers. Enforced safety protocols which parallel the importance of safety in Civil Engineering from November 2023 to December 2024.
- Attended workshop on Advanced Soil Testing techniques and gained hand-on experience with field testing equipment like SPT, CPT.
- Worked on Gdynia Waterfront – Office building (Green building) term paper and gained knowledge in LEED-certified buildings.