

# MUHAMMAD SOHAIL

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## OBJECTIVE

Motivated Civil Engineer and BIM Modeler with experience in Revit-based modeling, structural drafting, and interdisciplinary coordination. Seeking a BIM Engineer role to contribute precise, regulation-compliant BIM deliverables.

## EDUCATION

NED University of Engineering and Technology

Karachi, Pakistan

BE Civil Engineering

2021 – 2025

F.G Sir Syed College, Rawalpindi Cantt

Rawalpindi, Pakistan

FSc Pre-Engineering

2019 – 2021

## SKILLS

BIM Tools

Autodesk Revit, Navisworks, Dynamo, Civil 3D, AutoCAD, AutoRebar, Twinmotion

Structural Tools

ETABS, SOFiSTiK, CSI SAFE

Other Tools

MATLAB, Python, QGIS, MS Office, Adobe Suite

Soft Skills

Collaboration, Scientific Writing, Permit Coordination, Technical Detailing

## EXPERIENCE

BIM Modeler

Jul 2025 – Present

Pro Building Designer LLC

Besham, Pakistan

- Created detailed BIM models for residential and commercial buildings using Autodesk Revit.
- Supported architectural and structural drafting with code-compliant permit-ready documentation.
- Modeled wood, steel, and RCC structures with accuracy to facilitate coordination and design workflows.

Civil Engineering Intern

Dec2024

Naqvi and Siddiqui Architects(Associates)

Karachi, Pakistan

- Assisted in site monitoring and concrete testing against ETABS design requirements.
- Reviewed drawings and specifications to assist in quantity takeoffs for slabs and beams.

BIM Intern

Feb2024–Mar2024

AAA Partnership Pvt Ltd

Karachi, Pakistan

- Created coordinated BIM models (architectural, structural, MEP) in Autodesk Revit.
- Developed parametric Revit families to enhance modeling precision.
- Attended workshop on Procore software to understand estimation workflow and document control.

Freelancer—Fiverr and Upwork

Dec2022–Present

Remote

- Modeled residential and commercial buildings in Revit and AutoCAD for layout and documentation purposes.
- Extracted quantities for floors, walls, and materials directly from Revit models and compiled Excel-based BOQs.
- Delivered 2D drawings and estimation-ready outputs under tight client deadlines with accuracy and clarity.

## FINAL YEAR DESIGN PROJECT

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### Digital Twin Aided Carbon Footprint Analysis for an Industrial Project

- Modeled a prefabricated industrial facility in Revit with integrated IoT sensor data.
- Used Arduino sensors to track eCO2, temperature, and humidity.
- Simulated energy usage scenarios to identify high-carbon processes.

## ACADEMIC PROJECTS

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### - Quantity Estimation and Rate Analysis – 400 Sq. Yards Residential Building

Estimated quantities and calculated rates for materials based on drawings and market rates.

### - Structural Design and Analysis – 4-Story School Building

Designed structural system using ETABS and CSI SAFE. Created structural detailing in AutoCAD.

### - Road Alignment and Curve Design

Designed a road with horizontal and vertical alignments using Civil 3D. Performed geometric curve design and manual drawings.

### - Design and Analysis of G+2 Building

Analyzed a G+2 structure per ACI 318 standards using ETABS and modeled it in Revit for visualization and documentation.

### - Bitumen Testing for Pavement Suitability

Compared physical properties of two bitumen samples using penetration, ductility, and softening point tests to assess pavement compatibility.

### - Hydraulic Modeling – Hydropower Plant

Applied principles of similitude to design a physical model representing a prototype hydropower plant.

### - Manual Structural Analysis of G+2 Building

Manually analyzed a multi-story structure for internal forces and structural behavior under applied loads.

### - Photogrammetry and Scale Development

Used photogrammetry techniques to develop a scalable method to measure real-world distances from images.

### - Earthwork Calculation – Cut and Fill Estimation

Used Google Earth Pro and ArcGIS to compute cut and fill volumes in a land development project.

### - Architectural Design and 3D Visualization – G+1 Building

Created architectural drawings, 3D model, and walkthrough in AutoCAD and Revit for a G+1 house.

## CERTIFICATIONS AND COURSES

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- BIM Fundamentals for Engineers (Coursera)
- AutoCAD (Digiskills)
- Creative Designing (NFTP Batch-4)
- Digital Marketing (Digiskills)
- Professional Email Writing (Coursera)
- Bridge Construction Methodologies (Udemy)

## HONORS AND ACTIVITIES

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Trailblazers Engineers Scholarship – Full merit-based academic scholarship (2022–2025)

Creative Designer: ACI & NSA NED Chapters – Created posters, layouts, and event graphics (2022–2023)

Participant, National Dialogue on Climate Change – Focus on sustainability and green engineering (2023)