Nour eldin Walid Mohamed Rashad

BIM Engineer | Technical Office Engineer

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PROFILE

BIM Engineer with strong experience bridging Building Information Modeling and technical office operations within construction projects. Skilled in using Revit-based BIM models to support quantity take-offs, BOQ preparation, variation orders, and contractor invoice verification. Experienced in model auditing, data consistency, and drawing control, ensuring alignment with project specifications and applicable codes. Proficient in Dynamo-based automation and Power BI dashboards to enhance productivity, reduce manual errors, and deliver accurate commercial reporting. Adept at collaborating with site, design, and planning teams to deliver efficient, coordinated, and execution-ready BIM outputs.

EDUCATION

Bachelor's degree in Civil Engineering 09/2019 – 01/2025
Cairo University

PROFESSIONAL EXPERIENCE

BIM Engineer / Technical Office Engineer 05/2025 – Present
MIG Company

- Utilized Revit-based BIM models to support quantity take-offs (QS), BOQs, cost-related analysis, and contractor invoice verification for reinforced concrete, architectural, and structural elements.
- Reviewed and coordinated shop drawings, structural details, and technical submittals in alignment with project specifications and codes.
- Prepared and managed variation orders (VOs) — documenting scope changes, pricing deviations, and coordinating approval between site, technical office, and client teams.
- Processed contractor invoices (IPCs), cross-referencing executed quantities against BIM model data and site records to ensure accurate and justified payment certification.
- Produced wastage and material reconciliation reports, comparing ordered vs. installed quantities to support cost control and procurement decisions.
- Performed model auditing and data validation to ensure accuracy of quantities, drawings, and commercial deliverables.
- Supported coordination between site, BIM, and technical office teams to resolve constructability and execution issues.
- Applied Dynamo-based automation and Power BI dashboards to streamline quantity extraction, improve reporting accuracy, and reduce manual errors across commercial workflows.

Site Engineer (BIM-Oriented) 08/2024 – 05/2025
MIG Company

- Assisted in project planning tasks including reviewing schedules, understanding construction sequencing, and aligning BIM deliverables with execution timelines and milestones.
- Participated in cost monitoring and reporting — tracking executed quantities against planned values, identifying variances, and escalating potential cost overruns to senior engineers.
- Supported preparation of progress reports and commercial documentation, including quantity verification sheets used as basis for contractor payment applications.
- Coordinated with site engineers to verify executed works for payment certification, ensuring quantities submitted in contractor invoices were substantiated by actual site progress.
- Assisted in reviewing and validating interim payment certificates (IPCs) against BIM model data and site measurements to support accurate and dispute-free payment processing.

Early Experience & Training (BIM-Aware) 07/2023 – 08/2023
MIG Company / TAMEER Company
- Gained early exposure to planning, cost control, and execution data, later leveraged within BIM workflows.
- Supported quantity tracking and progress reporting, forming the foundation for 5D BIM thinking.
- Developed understanding of how construction logic translates into digital models and automation rules.

COURSES

BIM Development Diploma - In Progress 04/2026 – 12/2026
KAITECH

- Developing advanced BIM automation workflows using Dynamo and Python.
- Learning Revit API (C#) fundamentals for creating custom tools and add-ins.
- Building scripts for model auditing, parameter control, and data validation.
- Automating quantity extraction, data checking, and documentation tasks.
- Applying structured programming logic to BIM problems (inputs, rules, outputs).
- Understanding scalable BIM systems and reusable automation workflows.

BIM Technical Office Diploma 08/2024 – 05/2025
To-BIM
- Applied BIM workflows to technical office tasks including quantity take-offs, shop drawings, and coordination.
- Integrated Revit models with QS and execution-oriented deliverables.
- Exposure to BIM standards, model organization, and project-based BIM practices.

CSI Structural Design Course 02/2024 – 06/2024
SAP-SAFE-ETABS

SKILLS

BIM Platforms & Standards
- Autodesk Revit — data-centric modeling, documentation, coordination
- IFC workflows — export, validation, and downstream data use
- Model structuring for automation, quantities, and reporting
- BIM data consistency, standards enforcement, and QA/QC logic

Technical Office & Project Control

- Shop drawing review and coordination
- Quantity surveying and material take-offs
- Cost control support (planned vs. actual quantities)
- Technical submittals and documentation control
- Coordination between BIM, site, and technical office teams

Planning & Management Exposure

- Construction sequencing and execution logic
- Progress tracking and reporting
- Basic understanding of project planning and schedules
- Integration of planning, cost, and execution data

Automation & Development

- Dynamo for Revit (visual scripting & workflow automation)
- Python scripting within Dynamo for logic-based automation
- Revit API (C#) — learning and experimenting with custom tools
- Automation of repetitive BIM tasks and quantity-related workflows

Data, QS & Digital Reporting
- Microsoft Power BI
- Built interactive dashboards linked to IFC-based 3D models
- Connected quantities (QS) and planning schedules to BIM data
- Visualized progress, quantities, and model-driven insights

- Microsoft Excel — BIM data extraction, transformation, and reporting

SOFTWARES

Revit
- Modeling, Documentation, Quantities, Coordination

Python
- Embedded in Dynamo for logic-based automation

Revit API (C#)
learning & experimentation with custom tools

AutoCAD
- 2D coordination & detail support

Dynamo
- Visual scripting & workflow automation

Data Shapes
- Advanced Dynamo UI & input handling

Microsoft Power BI
- Interactive dashboards integrating IFC-based 3D models
- Linked quantities (QS) and planning schedules to BIM data
- Visualized progress, quantities, and model-driven insights