GAZIA WAEL

Software Engineer - Computational Engineer

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🌐 https://www.upwork.com/freelancers/~0171d6ca4b19795916

PROFESSIONAL EXPERIANCE

Software Engineer | F.R.BIM

📅 2022 - 2023   📍 Cairo, Egypt

Missions:
- Develop desktop applications and Add-ins for Autodesk Revit & Autodesk Navisworks, to help automate the design and the construction process.
- Create full-stack application integrated with Autodesk Forge services using .NET Core, and Vue.js
- Develop web application with .NET Core, and Vue.js

Environment: *C#, WPF, .NET CORE, SQL Server, JavaScript, Vue.js, GitHub, Revit API, Navisworks API, Autodesk Forge*

BIM Structural Engineer | S. A. Miro, Inc

📅 2020 - 2022   📍 Cairo, Egypt

Missions:
- Create Models, families in response to project needs, Models QC/QA, and preparing BOQ for various types of buildings including concrete, precast, post-tension, wood, CMU, and steel building.
- Coordination and automating the tasks through Dynamo Scripts and Revit APIs in order to enhance the workflow.

Environment: *Autodesk Revit, Autodesk Navisworks, Dynamo, C#*

BIM Structural Engineer | Project Advisor

📅 2019 - 2020   📍 Cairo, Egypt

Missions:
- Create Models, families in response to project needs, Models QC/QA, and preparing BOQ for various types of buildings including concrete, precast, post-tension, wood, CMU, and steel building.
- Coordination and automating the tasks through Dynamo Scripts and Revit APIs in order to enhance the workflow.

Environment: *Autodesk Revit, Autodesk Navisworks, Dynamo, C#*

ACADEMIC PROJECTS

- Numerical Modelling for a large Reynolds number flow around a rectangular cylinder
- CFD Modelling of heat transfer in a steel plate.

INTERESTS

- **Sports:** *Ping Pong*
- **Travelling:** *France, Germany, Italy, Switzerland, Netherland*

LANGUAGES

- **English:** *Fluent*
- **Arabic:** *Native*

ACADEMIC EDUCATION

Faculty of Physics & Engineering - University of Strasbourg

Master in Computational Mechanics in Engineering

📅 2022 - Present   📍 Strasbourg, France

- Knowledge of the basics of fluids mechanics and solid mechanical laws, mathematics and numerical modelling.
- Use discretization methods for the equations governing physical processes (programming language and numerical techniques).
- Use simulation tools (commercial solvers, research codes or free software)
- Finite element method, and development of a Finite Element code.
- Create meshes around complex geometries.
- Post-process and visualize the analyzed data.
- Solve numerically problems in the fields of fluid mechanics, mechanics of solids, heat and mass transfer, biomechanics, and civil engineering.

Engineering School of Mansoura University

Bachelor Degree in Structural & Civil Engineering

📅 2014 - 2019   📍 Mansoura, Egypt

- Study structural analysis analytically and using finite element method, and soil mechanics.
- Solve structural and construction problem.
- Study mechanics of solids and material resistance, especially, reinforced concrete, and steel.
- Study hydraulics engineering, and design of the navigation structures.

INERNSHIP

University To Work Round 11 - BIM Program | TEA SERV COMPANY

📅 JUNE - SEPT. 2019   📍 Cairo, Egypt

Focus on applying BIM Methodology to achieve full deliverables beginning with 3D Models, Time Schedule (4D), Cost Analysis (5D), Sustainability (6D), and ending with facility management (7D) in addition to applying automation concept through Dynamo Scripts.

University To Work Round 10 - Structural Program | TEA SERV COMPANY

📅 JUNE - SEPT. 2018   📍 Cairo, Egypt

Focused on the structural design of buildings (residential, industrial, educational, and healthcare). During this internship, I had a powerful experience in using Design and Detailing Software Packages

SKILLS

- **Structural Analysis:** *CSI SAP2000, CSI ETABS, CSI SAFE*
- **Modelling:** *Autodesk AutoCAD, Autodesk Revit*
- **Construction Coordination:** *Autodesk Navisworks*
- **Numerical Simulation:** *Ansys Fluent, Abaqus, ANSYS, COMSOL*
- **DBMS:** *SQL Server Management Studio (SSMS)*
- **Programming:** *C#, JavaScript, Python, Fortran, MATLAB*
- **Frameworks:** *.NET Framework, WPF, ASP .CORE, Vue.js*
- **Operating Systems:** *Windows, LINUX*
- **Tools:** *MS Office, Adobe Photoshop, Adobe Illustrator, Adobe Premiere Pro*