

TAREK AHMED SALEH

BIM Developer / APS Developer



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<https://apps.autodesk.com/en/Publisher/PublisherHomePage?ID=VR7RLKPPBRDD>

Summary

BIM professional with a strong background in software development and road engineering, I have a proven track record of implementing the BIM workflow and creating software solutions that enhance efficiency and productivity.

Technical Skills:

- Developing plugins for AutoCAD, Civil3D, and Revit
- Creating web applications, desktop applications, and Windows services using the Forge API
- Creating dynamo scripts and Civil3D subassemblies to automate the design process

Experience:

- BIM Developer: created plugins for AutoCAD, Civil3D, and Revit that increased efficiency and productivity, developed standalone applications that streamlined the design process, and integrated emerging technologies
- BIM Roads Engineer: created accurate and detailed models of urban sites and maintained the quality of BIM models for all department projects

Measurable Accomplishments:

- Reduced roads design time of large projects by almost 75% through the use of automation tools
- Developed and published plugins for AutoCAD and Civil3D on the Autodesk App Store.
- One of my plugins "TA Roads Toolkit" is on the "Most Popular Paid Apps" list on Autodesk app store.

I am passionate about leveraging my skills and expertise to drive innovation and efficiency in the engineering industry. I am excited to continue exploring new technologies and applying them to create customized solutions.

Education



Bachelor's degree in civil engineering, Ain Shams University

Cairo, Egypt
2018

Current Position



LTI Mindtree

Riyadh, KSA

Jan 2024 - Present

Senior BIM Software Developer

Crafting robust software integrations that bridge the gap between essential industry platforms like BIM360, ACC, ArcGIS and Primavera. Specifically, my key responsibilities include:

- Research and development for potential integration between essential platforms
- Structuring the solution and providing technical proposals then developing the software

Previous Experience



KEMET CORPORATION

Cairo, Egypt

July 2023 – Dec 2023

Senior BIM Software Developer

My key responsibilities included:

- Designing, developing, and maintaining software applications that support BIM workflows and enable efficient collaboration among various stakeholders in a construction project.
- Collaborating with cross-functional teams, including architects, engineers, project managers, and other software developers to ensure that software solutions are aligned with project objectives and meet user requirements.
- Providing technical guidance and mentorship to other software developers on the team, and ensuring that they are equipped with the necessary technical expertise to deliver high-quality software products.
- Researching and evaluating new technologies and software solutions to improve BIM workflows and enhance the efficiency of construction projects.



KEMET CORPORATION

Cairo, Egypt

Jan 2022 – July 2023

BIM Software Developer

My key responsibilities included:

- Developing plugins for AutoCAD, Civil3D, and Revit that enhance the functionality of these popular BIM software applications.
- Creating web applications, desktop applications, and Windows services based on Forge API, a powerful set of cloud-based tools that enable the creation of custom software solutions for the engineering industry.



KHATIB & ALAMI

Cairo, Egypt

Mar 2021 - Dec 2021

BIM Roads Engineer | BIM Software Developer

- As BIM Roads Engineer my key responsibilities included:
 - Implementing BIM workflow in the design process.
 - Creating BIM models
 - Maintaining the quality of BIM models for all department projects, ensuring that they are accurate, up-to-date, and error-free.
- As BIM Software Developer my key responsibilities included:
 - Creating dynamo scripts to automate the design process.
 - Creating Civil3D subassemblies using subassembly composer, enabling to
 - Creating plugins for AutoCAD and Civil3D that enhance their functionality
 - Developing standalone applications that help implement BIM workflow.



KHATIB & ALAMI

Cairo, Egypt

Apr 2020 - Mar 2021

Roads Engineer

My key responsibilities included:

- Planning and designing urban sites, ensuring that they are functional and safe.
- Conducting rough grading for urban sites, ensuring that the site is properly prepared for construction.
- Conducting grading for roads and intersections, ensuring that they meet the required standards.
- Calculating BOQ (Bill of Quantities).



ALAMAR CONSULTING GROUP

Cairo, Egypt

Jan 2019 - Mar 2020

Roads Engineer

My key responsibilities included:

- Planning and designing urban sites, ensuring that they are functional and safe.
- Calculating BOQ (Bill of Quantities).
- Preparing Tender Package.
- Conducting vehicle tracking simulation

Programming Skills

Programming Languages	Software Frameworks	Desktop Development	Web Development	API Development
C#	.NET 6	Windows Presentation Foundation (WPF)	HTML & CSS	AutoCAD API
SQL	Entity Framework	MVVM Pattern	JavaScript	Civil3D API
Python			ASP.Net Core	Revit API
			React JS	Forge API

AEC Software Skills

AutoCAD	Navisworks
Civil 3D	Dynamo
Revit	Subassembly Composer
InfraWorks	Vehicle Tracking

Languages

Arabic – Proficiency level: Native

English – Proficiency level: Fluent

Autodesk App Store Applications



TA ROADS TOOLKIT



TA ROADS PLANNER



TA SOLIDS EXTRACTOR



TA SHEETS GENERATOR



TA AUTO POINTS

BIM Development Projects

1. ACC Docs Uploader

- ACC Docs Uploader is a desktop application designed to streamline the process of accessing and manipulating project data stored in the Autodesk Construction Cloud (ACC)
- Connects to the ACC through Forge APIs, enabling secure retrieval of project data
- Presents project data to the user in a clear and concise manner
- Allows users to upload folders containing files and subfolders
- Takes care of all necessary HTTP requests required to upload each file individually, ensuring that each file is uploaded in the correct order and all necessary metadata is included
- Provides a convenient and efficient way to manage project data in the ACC

2. ACC Print PDF

- ACC Print PDF is a web application designed to streamline the process of printing RFIs, issues, and forms in ACC projects
- Users can create templates with placeholders for the data they want to retrieve, such as RFI numbers, issue descriptions, or form fields
- Templates can be customized to include the user's company logo, branding, or other design elements
- Automatically replaces placeholders with actual data from the project when the user is ready to print the document
- Allows users to download or print the resulting PDF document directly from the application
- Saves users time and effort by automating the synchronization process

3. ACC Docs Archive

- ACC Docs Archive is a Windows service designed to keep local project archives in sync with the cloud version stored in the Autodesk Construction Cloud (ACC)
- Runs in the background, periodically checking for changes and downloading only the necessary updates to the local server
- Optimizes the synchronization process and minimizes the amount of data transferred over the network
- Customizable settings file allows users to adjust the interval time between syncs to ensure that the service runs at the most convenient time
- Enables users to set a maximum download speed limit to optimize network usage

4. Elsewedy Electric Busway Revit Plugin

- Busway Revit Plugin is a specialized application designed to support the design and production of Elsewedy Electric Busway products
- Built on top of Revit, a popular BIM software, and tailored to meet the specific technical specifications of the company
- Offers a range of core functions to support the design, fabrication, and sheet production processes
- In the design phase, users can select products and sketch out layouts
- In the fabrication phase, the application can convert designs into fabrication-ready models and vice versa, as well as add supports and hangers
- In the sheet production phase, the application can automatically generate dimensions, annotations, isolated 3D views, and BOQ schedules, as well as produce sheets

5. Schematic line diagram plugin

- Schematic line diagram plugin is a software designed to streamline the process of creating a schematic line diagram for a duct network
- Users can simply click on the first duct in the network, and the software will automatically generate a diagram that accurately represents the network's layout with all the necessary data for example duct flow and size.

BIM Roads Design Projects

1. TBC Schools – Wave 1

- Designing Surrounding Roads and Off-Street Parking Areas
- Creating BIM models for the designed areas
- Total of 60 schools located in Riyadh and Makkah
- Client: Ministry of education – Wave one project company LTD

2. An-Nassem Neighborhood – Riyadh

- Roads Development for a residential neighborhood
- Area = 11,000,000 M² (2600 Fadden)
- Client: Green Riyadh

3. Grant Lands 7 -Asir, Ahad, Rufaidah, West Abian

- Residential project
- Area = 1,700,000 M² (404 Fadden)
- Client: Saudi Arabia Ministry of Housing

4. The Land bridge Project Rail line from Riyadh to Jeddah – KSA

- Technical support for the intersections between the railway and the existing roads
- Railway length = 950 km

5. Buraydah & Tabuk Independent Sewerage Treatment Plants

6. Reuse of treated water in Burayda City

7. Celia - New Administrative Capital

- Residential project
- Client: Porto Group

8. Golf Porto Cairo at Mostakbal City - New Cairo

- Residential project
- Client: TMG (Talaat Mostafa Group)

9. Porto Pheonice - Marsa Alam

10. Madinaty residential buildings district B08 - New Cairo

- Residential project
- Client: TMG (Talaat Mostafa Group)

11. Biscuit factory - El Sadat city

- Industrial project
- Roads Design suitable for heavy trucks loading and unloading

12. 90 Avenue - New Cairo20

- Residential project
- Client: Tabarak Holding

13. Cruise Terminal Area Development - Abu Dhabi

- Roads Development includes new design for roads profiles and cross-sections