

# Shady Nawara

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## Profile

Highly skilled Solutions Architect with a solid foundation in software development and proven leadership capabilities. I excel in designing, planning, and implementing innovative and robust solutions to solve intricate business challenges. Leveraging my deep understanding of technology and business processes, I work collaboratively with cross-functional teams to deliver results that drive business value.

## Technical Skills

**Programming Languages:** HTML, CSS, JavaScript, C, C++, C#, Python, PHP, Rust, Java, Lua, Assembly (ARM), VHDL  
**Databases:** MongoDB, PostgreSQL, SQL Server  
**Frameworks/Libraries:** Angular, React, QT, ASP.Net, VTK, Three.js, Autodesk Forge

## Professional Experience

Solutions Architect

Turner Construction/Nexplore US - Minneapolis, MN

January 2020 – Current

- Redesigned our core platform, enhancing scalability and performance with technologies like GraphQL, RabbitMQ, and MongoDB.
- Led and supported a team of 40 in-house and outsourced developers and tech-leads in delivering six major cross-domain applications, navigating, and resolving technical challenges throughout the development process.
- Drove key technical decisions and provided strategic options to stakeholders, aligning product specifications with business goals to ensure successful outcomes.
- Established DevOps and CI/CD processes to streamline code development, testing, and deployment.
- Headed the 3D graphics team in developing applications for processing point clouds and 3D/BIM models in C++.
- Directly involved in the hands-on development and problem-solving across all product lines, utilizing C++, C#, Python, and Angular to optimize and resolve complexities within engineering workflows in the construction and mining industries.
- Designed and developed AI integrations in our core product using Langchain and Azure ChatGPT models.
- Championed software quality through rigorous automated testing and code reviews, ensuring robustness and reliability in all applications.
- Successfully deployed and maintained six applications across companies within the group, ensuring their operational integrity and security in production environments with over 1000 users.

Project Manager

Nexplore Germany – Darmstadt, Germany

August 2019 – December 2019

- Developed a 3D model visualization plugin for Autodesk BIM360 Field.

Software Developer – Team Lead

Turner Construction/Nexplore US - Minneapolis, MN

December 2017 – August 2019

- Lead developer on a desktop application for point cloud visualization, segmentation, and volume calculations using C#, C++, and the VTK framework.
- Developed Autodesk AutoCAD plugins in C++.
- Orchestrated the transition of the desktop application to the cloud using AutoDesk Forge and Three.JS.

- Oversaw software pilot programs for six multi-million-euro construction projects in Germany.

## I.T Teacher Assistant

Minnesota State University, Mankato - Mankato, MN

August 2016 – August 2017

- TA for Data Structure and Algorithms, System Analysis and Design, and Web Development.
- Supported students in completing projects and assignments.
- Participated in scheduled office hours for student consultation.
- Delivered classroom presentations and lectures.

## Education

MBA, University of Fredericton. 2020-2023

MSc. Digital Forensics and Cyber Security, University of the Cumberlands. 2022-2023.

BSc. Computer Engineering IOT & Embedded Software Design, Minnesota State University Mankato. 2016-2019.