

Harish Ojha

Software Engineer

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GitHub: <https://github.com/Ojhaji000> | Portfolio: <https://ojhaji000.github.io/portfolioWeb/>

Summary

Software Engineer with experience in computational geometry and CAD customization. Skilled in C# and transitioning core geometric concepts to modern C++. Strong analytical skills with a focus on correctness, maintainable design, and performance optimization. Hands-on exposure to CAD/CAE environments and geometric modelling, and research oriented mindset.

Technical Skills

- **Programming:** C#, C++, .NET, Logical Reasoning, DSA
- **Mathematics:** Linear Algebra, Affine Transformations, Computational Geometry
- **Visualization / CAD:** CAD customization, geometric modeling concepts, Revit API
- **Engineering Practices:** Object-Oriented Design, Design Patterns, Problem Solving, Code Refactoring, debugging
- **Tools:** Visual Studio, VS Code, Git, CMake, Windows SubSystem for Linux(WSL)
- Other: Excellent communication skills, team player

Professional Experience

Company: CCTech | Title: Member of Technical Staff | From: Jan 2024, To: Jun 2025

- Developed CAD-related software features in Revit using C#.
- Applied computational geometry and vector mathematics for rule-based CAD modifications.
- Collaborated with senior engineers to deliver maintainable, standards-compliant implementations.
- Exposure to engineering software development practices in CAD/CAE environments.

Company: Cognizant | Title: Programmer Analyst Trainee| From:Jun 2022, To:Mar 2023

- Trained in .NET application development and debugging.
- Contributed to feature enhancements and maintenance tasks.
- Built foundational understanding of enterprise software development practices.

Projects

Line-Triangle Intersection (C++)

- Implemented algorithms for intersections in 3D space using computational geometry.
- Validated correctness and numerical stability with desmo3D visualization.

Affine Transformations Pipeline (C#)

- Designed 2D affine transformations (translation, rotation) using homogeneous coordinates.
- Built reusable transformation pipeline with matrix composition.

Education

B.Tech – Mechanical Engineering

College: Shri Shankaracharya Technical Campus, Bhilai | From: July 2018 , To:June 2022 | Result: 78%