

# Shreyos Ghosh

Graphics Rendering Programmer

Location

India

Mail

shreyos.ghosh@outlook.com

Website

loadingshaders.xyz

## Education

### JIS University

Kolkata, West Bengal, India

Bachelor of Computer Science & Technology GPA: 9.1

2021 - 2025

### U.H.N.A.V

Kolkata, West Bengal, India

High School Certification in Computer Science and Programming GPA: 79.6

2018 - 2021

## Skills

Programming Languages: C, C++(20/17/14/11), Lua, GLSL, HLSL

Development Tools and Technologies: Visual Studio, Git & Github, Premake, Blender

API's / Libraries: SDL2, ImGui

## Interest

Learning about Linear algebra

Shader Programming

Learning Real Time Rendering Technologies

## Projects

### Raether C++/SDL2, Premake

<https://github.com/shreyosgit/Raether>

Raether is an offline brute-force CPU path tracer developed in C++ with SDL2. It implements core ray tracing features such as,

- Anti-aliasing
- Motion Blur
- Instances
- Multiple ray bounces
- Accelerated Rendering with BVH
- Volume Rendering
- Interactive camera controls
- Texture Mapping
- Triangle Primitives
- Multisampling
- Emissive Geometry
- GLTF Mesh Rendering

The project supports various materials, including dif use, specular, dielectric, and emissive, with pixel color accumulation for progressive rendering. This project uses SDL2 for application window management.

### FragTal C++/SDL2, ImGui, Premake

<https://github.com/shreyosgit/Fragtal>

Fragtal is a single-pass fragment shader editor with a built-in code editor and real-time compilation. It was inspired by ShaderToy and designed for PC, offering features like,

- Shader performance metrics overlay
- Play-pause, and fullscreen mode

The UI is built using open-source immediate mode UI library, Dear ImGui