

linkedin.com/in/saumyadip2025

github.com/Saumyadip-Kar

PORTFOLIO - SAUMYADIP.COM

SAUMYADIP KAR

SKILLS

Languages: C++, Python, CUDA, GLSL, JavaScript, C#.NET

AI/DL: PyTorch, Training, Finetuning, Optimizing Multimodal Models.

Graphics: Vulkan, Ray Tracing, PBR, Shaders.

Sim: High Fidelity Simulator Design, Physics Simulation, Synthetic Data Generation, UE5/Custom.

EXPERIENCE

ISI, Kolkata, Research Intern

May 2024 - Jul 2024

Satellite Orbital Simulator for Constellation Mission Analysis

Engineered TLE-based propagation to model complex access geometries, and line-of-sight analysis, generating synthetic datasets for sensor training and optimized scheduling.

Technical Projects

2020 - 2025

- Domain-Specific SLM Optimization
- Stylized 3D Racing Sim
- Vulkan Kernel for Particle Simulation
- Cellular Automata Simulator - Customizable Rules
- General-Purpose IDE with Visual Snippets

EDUCATION

IACS, Kolkata - MS, Computer Science - CGPA 9.23

Aug 2023 - Jul 2025

Silver Medalist (Academic Rank 1 in Math & Computer Science)

RKMVCC, Rahara - BSc, Computer Science - CGPA 9.84

Oct 2020 - June 2023