

Project 2, Milestone 1 — GPU Ray Tracing with CUDA

Introduction

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Performance

To satisfy the requirements of milestone 1, implement a serial version of the algorithm described above. In your report, fill out the information requested in Table 2 using the parameters in Table 1.

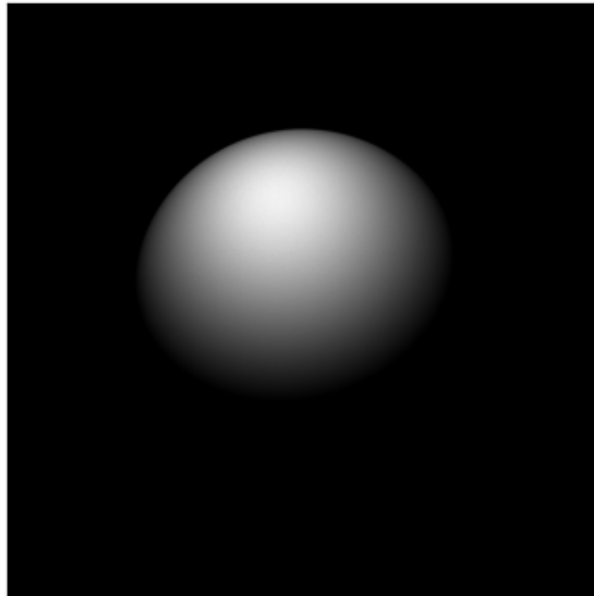


Figure 1: Ray-Traced rendering of a sphere illuminated from top left.

Description	Value
PRNG	xoshiro256++
Language	C
Compiler	gcc
Compiler Options (Caslake)	-fopenmp -lm -O3
Compiler Options (Apple M1)	-Xclang -fopenmp -lomp -O3
Number of Rejected Rays	6,464,045,697
Serial Time to Solution (Caslake)	317.22 seconds
Serial Time to Solution (Apple M1)	224.74 seconds

Table 1: Performance and Metadata.