Implementing a Software Rasterizer in C

Thomas Dizon

September 24, 2025

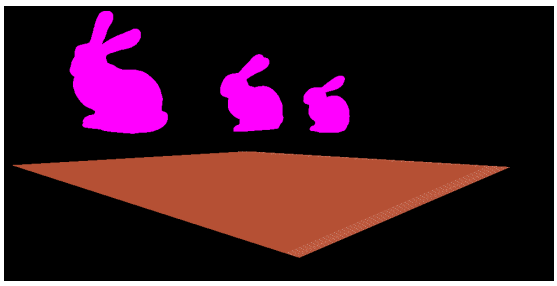

Figure 1:

Contents

1 Abstract **3**

2 Introduction **3**
2.1 Motivation 3
2.2 What is a *Software Rasterizer*? 3
2.3 Why *C*? 3

3 Background **3**
3.1 Algorithms 3
3.2 Math Concepts 3
3.3 Computer Graphics Concepts 3

4 System Architecture **3**
4.1 Overview 3
4.2 Project Structure 3
4.3 Data Design 3
4.4 Software Design 3

5 Conclusion & Future Work **3**
5.1 What I learnt 3
5.2 A future implementation in C++ 3

6 References **3**

1 Abstract

2 Introduction

2.1 Motivation

2.2 What is a *Software Rasterizer*?

2.3 Why *C*?

3 Background

3.1 Algorithms

3.2 Math Concepts

3.3 Computer Graphics Concepts

4 System Architecture

4.1 Overview

4.2 Project Structure

4.3 Data Design

4.4 Software Design

5 Conclusion & Future Work

5.1 What I learnt

5.2 A future implementation in C++

6 References