

Assignment 5 Implementation Report

Load and Render a 3D model [20pt]

- Built the camera transformation matrix
- Built the Orthographic Projection matrix, see Assignment 3 for computing t and l .
- Filled the shaders to rasterize the bunny in red

Wireframe[5pt]

- Rendered the bunny using a wireframe

Shading [30pt]

- Implemented the light equation
- Implemented the depth check
- Computed the per face normals and rendered the bunny with flat shading
- Computed the per vertex normals and rendered the bunny with vertex shading

Object Transformation [20pt]

- Added an option to rotate the object around the y-axis centered on its barycenter
- Created gif animations for the wireframe , flat and vertex shading

Camera [10pt]

- Implemented a perspective camera

Operating System and Compiler Used

The operating system I used was: Ubuntu 18.04.6 LTS

The compiler I used was: Cmake version 3.25.2