

CS 6323 Computer Animation & Gaming

Assignment 2 (Grade: 10 Points)

Cubic Curve Generation

Write a program to generate a curved path through a given set of points. The curve starts from the first point and goes through all the points in order and then end at the first point.

- Draw a ground plane. *This is already implemented in the provided starting code.*
- Display the points to be interpolated using small cubes. The coordinates of the points are given in the starting code. *This is already implemented in the provided starting code.*
- Display the generated curve.
 1. Set coefficient matrices for each segment based on Catmull-Rom formulation.
 2. Compute at least 200 points per segment.

The starting code draws 8 cubes representing the given points. Your task is to calculate the cubic curve for each segment with 200 points per segment, and draw the curve by connecting those 200 points as lines.