COMP0119: Acquisition and Processing of 3D Geometry

Coursework 2: Curvature Discretisation and Mesh Smoothing

This report will demonstrate the algorithm implemented for the curvature discretisation and mesh smoothing.

Section 1: Curvature Discretisation

Task 1: Uniform Mean and Gaussian Curvature

Bla

Task 2: Non-Uniform Mean Curvature

Bla

Task 3: Reconstruction

Bla

Section 2: Mesh Smoothing

Task 1: Explicit Laplacian Scheme

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Task 2: Implicit Laplacian Scheme

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Task 3: Implicit Laplacian Scheme

Bla

Reference

Desbrun, M., et al. (1999). Implicit Fairing of Irregular Meshes using Diffusion and Curvature Flow. *SIGGRAPH '99 Proceedings of the 26th Annual Conference on Computer Graphics and Interactive Techniques*, 317-324. doi: 10.1145/311535.311576

Lu, T. (2013). *Lecture 12: Discrete Laplacian*. Stanford University. Retrieved from <https://graphics.stanford.edu/courses/cs468-13-spring/assets/lecture12-lu.pdf>

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