Convert 2D Image to 3D Model

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Abstract:

The aim of this project is to implement machine learning code to convert a 2D image into a 3D Model. The dataset that will be used is ShapeNet which is a collection of different types of 3D models.

The packages used will be Nvidia Kaolin and Pytorch.

This is the timeline for the implementation of the project:

1. Download the dataset and process it for training (Finish Date: 20Feb2024)
2. Create the model for training. (Finish Date: 26Feb2024)
3. Train the model (Finish Date: 30Feb2024)
4. Test and Refine Model (Finish Date: 14Apr2024)

Source:

https://spltech.co.uk/how-to-turn-2d-photos-into-a-3d-model-using-nvidia-kaolin-and-pytorch-a-3d-deep-learning-tutorial/

https://arxiv.org/abs/1908.01210

https://github.com/NVIDIAGameWorks/kaolin