Neural Network 3D Visualization Add-on

Introduction

The Neural Network 3D Visualization Add-on allows users to create a customizable 3D representation of a neural network in Blender. It features an intuitive user interface with sliders to adjust the number of layers, nodes, and depth layers, as well as the spacing between them. Users can also modify the size of the spheres and cylinders used to represent the nodes and connections in the network.

Installation

1. Download the `neural_network_visualization.zip` file.
2. Open Blender.
3. Go to "Edit > Preferences".
4. In the Preferences window, navigate to the "Add-ons" tab.
5. Click "Install" and browse to the `neural_network_visualization.zip` file.
6. Select the ZIP file and click "Install Add-on".
7. Once the add-on is installed, enable it by checking the checkbox next to the add-on name.

Usage

1. Open a new or existing Blender project.
2. In the 3D Viewport, open the sidebar by pressing the `N` key or clicking the small arrow on the right side of the viewport.
3. Locate and click on the "Neural Network" tab in the sidebar.
4. Adjust the sliders to set the desired number of layers, nodes per layer, depth layers, and spacing between them.
5. Modify the sphere radius and cylinder radius to control the size of the nodes and connections.
6. Click the "Generate Neural Network" button to create the 3D visualization of the neural network.
7. If you want to modify the network, adjust the sliders as needed and click the "Generate Neural Network" button again. The new network will replace the previous one.
8. Once you're satisfied with the network, you can use Blender's built-in tools to manipulate, render, or animate the visualization.

Tips and Tricks

1. Use the sphere and cylinder radius sliders to adjust the thickness of the connections and the size of the nodes for better visibility or a more aesthetic appearance.
2. Experiment with different combinations of layers, nodes, and depth layers to create unique and complex neural network structures.
3. Use Blender's materials and lighting features to enhance the appearance of the network and create stunning visualizations.

Support and Feedback

If you encounter any issues or have suggestions for improvements, please visit the add-on's GitHub repository at https://github.com/icyou520/Neural-Network-Mesh-Generator

Create a new issue to report bugs or request new features, and feel free to contribute to the project by submitting pull requests with your own improvements.