badtViz Readme

Bended Attribute Decision Trees Visualization

# How to use badtViz

1. Start application executable. You will be presented with the following window:

A screenshot of a computer

Description automatically generated

1. In the top menu, expand the “Dataset” menu and click “Import”
2. Select “Text file” and continue
3. Click the “browse” button and select either a CSV (\*.csv) or a TSV (\*.txt) file containing a dataset
4. After clicking okay, a preview of the dataset will be presented in another window
5. Click the header of the column that contains the classification class data, and click “Change Data Type”

A screenshot of a computer

Description automatically generated

1. Click “Class Target” and then click okay to close the dialog, then click done

A screenshot of a computer

Description automatically generated

1. The dataset will be loaded and show up in the right side of the window:

A screenshot of a computer

Description automatically generated

1. In the top menu expand the “Tree” menu and click “Import”

A screenshot of a computer

Description automatically generated

1. Select a JSON file containing a binary tree structure that matches the imported data. The tree will be loaded into the program and be listed on the left side. Select the tree in the list to render it in the center viewport. Clicking in the viewport with the left mouse button and dragging will allow you to pan the view. The mouse wheel allows you to zoom in and out:

A screenshot of a computer

Description automatically generated

1. Clicking a tree node in the center viewport will allow you to adjust the threshold in real time:

A screenshot of a computer

Description automatically generated

# How to open the badtViz project and edit source code

1. Download the **Mono** release of Godot, **version 3.5.2.** Note that using a version other than 3.5.2 is not recommended and may not be compatible with the badtViz source code. Direct link: <https://github.com/godotengine/godot/releases/download/3.5.2-stable/Godot_v3.5.2-stable_mono_win64.zip>
2. After downloading and extracting Godot 3.5.2, run the included executable and then open the badtViz project folder. You will see something like this after the project is opened in the Godot editor:

A screenshot of a computer

Description automatically generated

1. In the bottom left file browser, open the “scene” folder and then double click “MainUICanvas.tscn”. This will open the main window scene of the badtviz program:

A screenshot of a computer

Description automatically generated

1. Instructions for using the Godot editor is out of scope of this readme, but note that all badtviz project code can be found in the \*.cs files, as this project was written in the C# programming language