Pairwise Image Visualizer App

Introduction:

Pairwise Image Visualizer App is a powerful image viewer that allows you to view images from multiple folders on the screen simultaneously. This app provides scrolling functionality, which enables you to scroll through your images, and it allows you to open up to four folders at the same time. The app is built using Electron.js and React, making it highly responsive and user-friendly.

Purpose:

The Purpose of this app is to show various images on the screen at once after a series of Image Processing steps such as object detection, image segmentation or upscaling. This can help the user in quickly checking the results of the model via seeing the images side by side.

Installation:

To use Pairwise Image Visualizer App, you need to <u>download</u> and install the app on your computer. Here are the steps to install the app:

- 1. Go to the Google Drive Folder and select the appropriate build.
- 2. Choose the version of the app that is compatible with your operating system (Windows, macOS, or Linux) and download it.
- 3. Once the download is complete, double-click on the installation file to install the app.

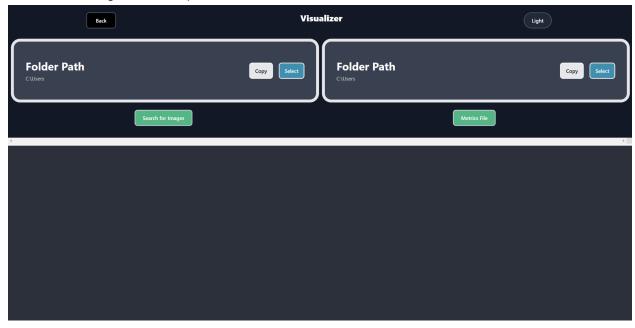
Usage:

To use Pairwise Image Visualizer App, follow these steps:

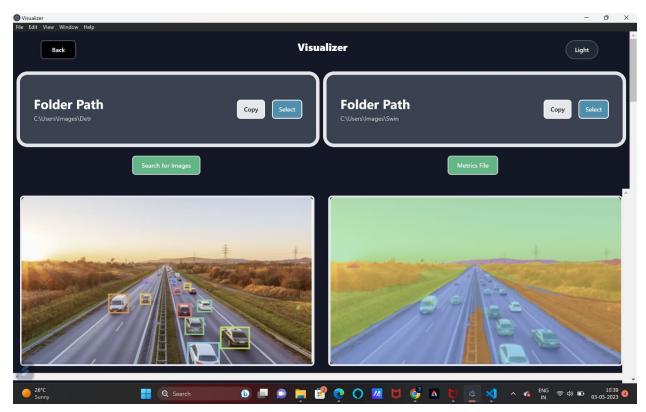
- 1. Launch the app by double-clicking on its icon.
- 2. The app will display a welcome screen that prompts you to select up to four folders containing the images you want to view.



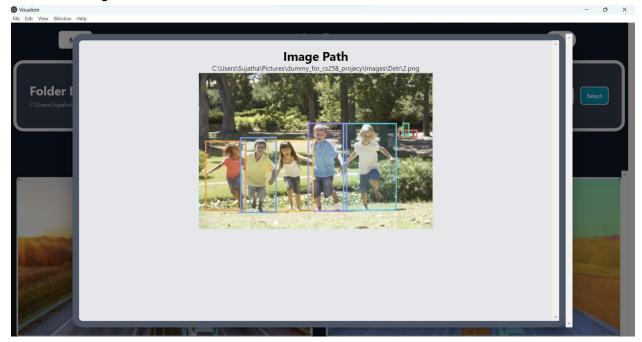
- 3. Click on the "Two Folders"/"Three Folders"/"Four Folders" button to select folders.
- 4. Click the Select button for each folder and browse to the desired folder.
- 5. Once you have selected your folders, click on the "Search For Images" button to load the images into the app.
- 6. Optionally, You can also select the metrics file by clicking the "Metrics File" button and it will sort the images based upon the metrics.



7. The images from each folder will be displayed side by side, and you can scroll through all the images by using your mouse or the arrow keys on your keyboard.



8. To zoom in on an image, click on the image, and it will be displayed in full-screen mode. Click again to return to the column view.



9. To close the app,click on the "X" button located in the top-right corner of the app window.

Customization:



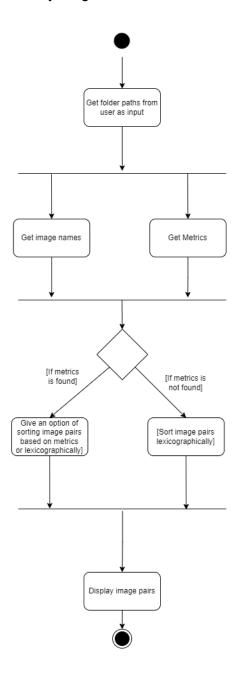
You can change the theme of the app by clicking on the button located in the top-right corner of the app window. You can switch between light and dark themes using this button.

Conclusion:

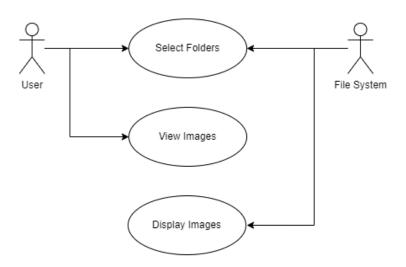
Pairwise Image Visualizer App is an easy-to-use and highly functional image viewer that allows you to view images from multiple folders at the same time. Its scrolling functionality and customizable features make it an ideal app for anyone who needs to view and compare images.

Diagrams

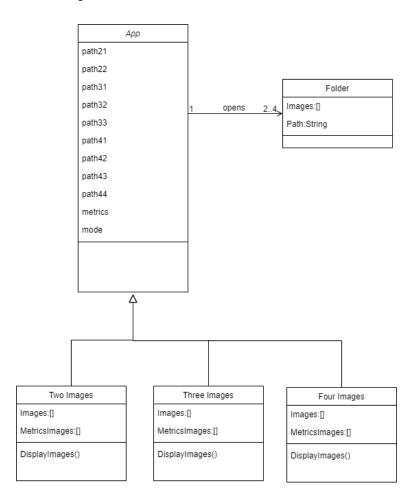
Activity Diagram:



Use Case Diagram:



Class Diagram:



Explanation:

- App class: This class represents the main application, which contains variables like path22, path 32, path33, mode, metrics, etc. We can select any option of seeing 2,3 or 4 image folder pairs.
- Folder class: This class represents a folder that contains images. It has a list of images and a path to it.
- Two Images, Three Images and Four Images: Each contains Images and MetricsImages variables contains image pairs for pairs. They also have Display Images function which displays images.