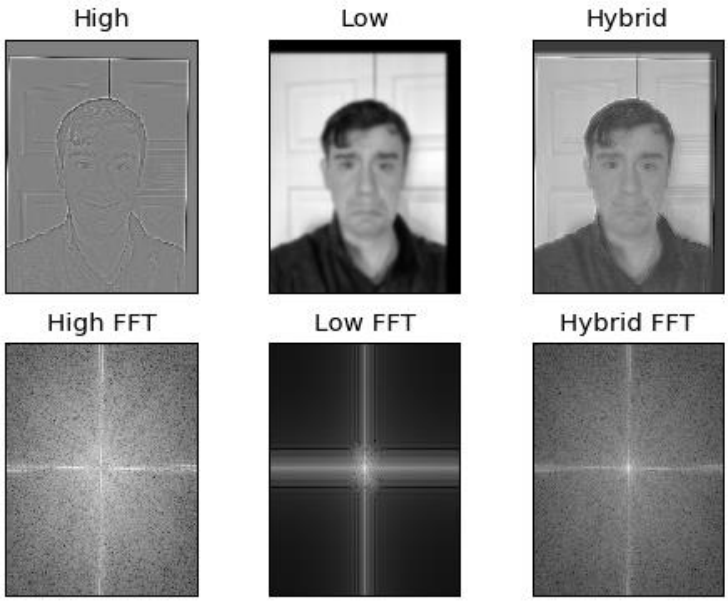
CS445 Project 1, Nathan Fitzpatrick

Hybrid Images

Original Images

Filtered Images and hybrid image



Below is the final cropped hybrid image. The foreground (up close) image is my smiling and the background (far away) image is me frowning. The foreground image contains only high frequency information and the background image contains only low frequencies. The hybrid image is created by simply adding these two images together.

The picture below is a mistake caused by misalignment.

In this example, the high frequencies of a Tesla are combined with the low frequencies of a Porsche.

Image Enhancements

Original Image

The contrast of this image has been improved through histogram equalization on the luminance channel

The colors are made more vivid by performing a histogram equalization on the saturation channel of the image.

Bells and Whistles

The bells and Whistles I chose were the color hybrid image and a third image enhancement task.

Make the image redder by applying a gamma adjustment on the a channel in the LAB colorspace.

In this image the color is made less yellow by applying a negative gamma adjustment on the b channel in the LAB colorspace.

Points:

I believe I should receive all 100 points for the regular assignment and 15 points of bells and whistles. I completed all three image enhancement tasks (10 points) and the hybrid image in color (5 points).