Simple Artistic Toolset

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Initial Plan

- Implement two papers and combine the results

- Painterly Styles

- Salient Preserving Greyscale Transformation

Updated Plan

- Implement three papers and combine the results

- Extended Difference of Gaussian

- Painterly Styles

- Salient Preserving Greyscale Transformation

Project Warm-up

- Image Thresholding
- Simple Greyscale conversion
- Inverting an Image
- Gaussian Blur
- Median Filter
- Equalizing Histograms
- Image tiling

XDoG

- Implement this with a variety of parameters
  - Black and White images
  - Three-tone greyscale
  - Edge sharpening on the original Image

- Currently Implemented
  - Just a simple two-tone difference of Gaussian

XDoG

Painterly Style

- Implement with a variety of parameters
  - Brush Sizes
  - Difference threshold values
  - Scaling of Stroke curvature

- I would also like to implement this on Movie files

- There are also several additional styles the paper suggests that I would like to include

Salient Greyscale Conversion

- Not Yet start

- Still undecided on which paper I would like to implement

  - Color2Gray: Salient e-Preserving Color Removal

    - Slow on larger images

  - Robust color-to-gray via nonlinear global mapping

    - Faster but results are not as impressive

Salient Greyscale Conversion

- Addition parameters available for this as well
  - Generate monotone images as well as just greyscale

- Exclude Regions from greyscale conversion
  - Not sure if I can make this happen in the time I have

Conclusion

- All current progress has been done with a simple command line interface.

- A user interface will be added later