# Project 2

The Neon Image Converter

Jones, Jonathan

jonathan.jones@gatech.edu
jjones646@gmail.com

Introduction

This program takes in an image and transforms it into an abstract neon image according to the image's contours. The resulting image will be different for 2 consecutive runs with the program since many random numbers are used in generating the final output.

After running the program with the provided example image, you will get a result that is similar to the one below (but not exactly the same).
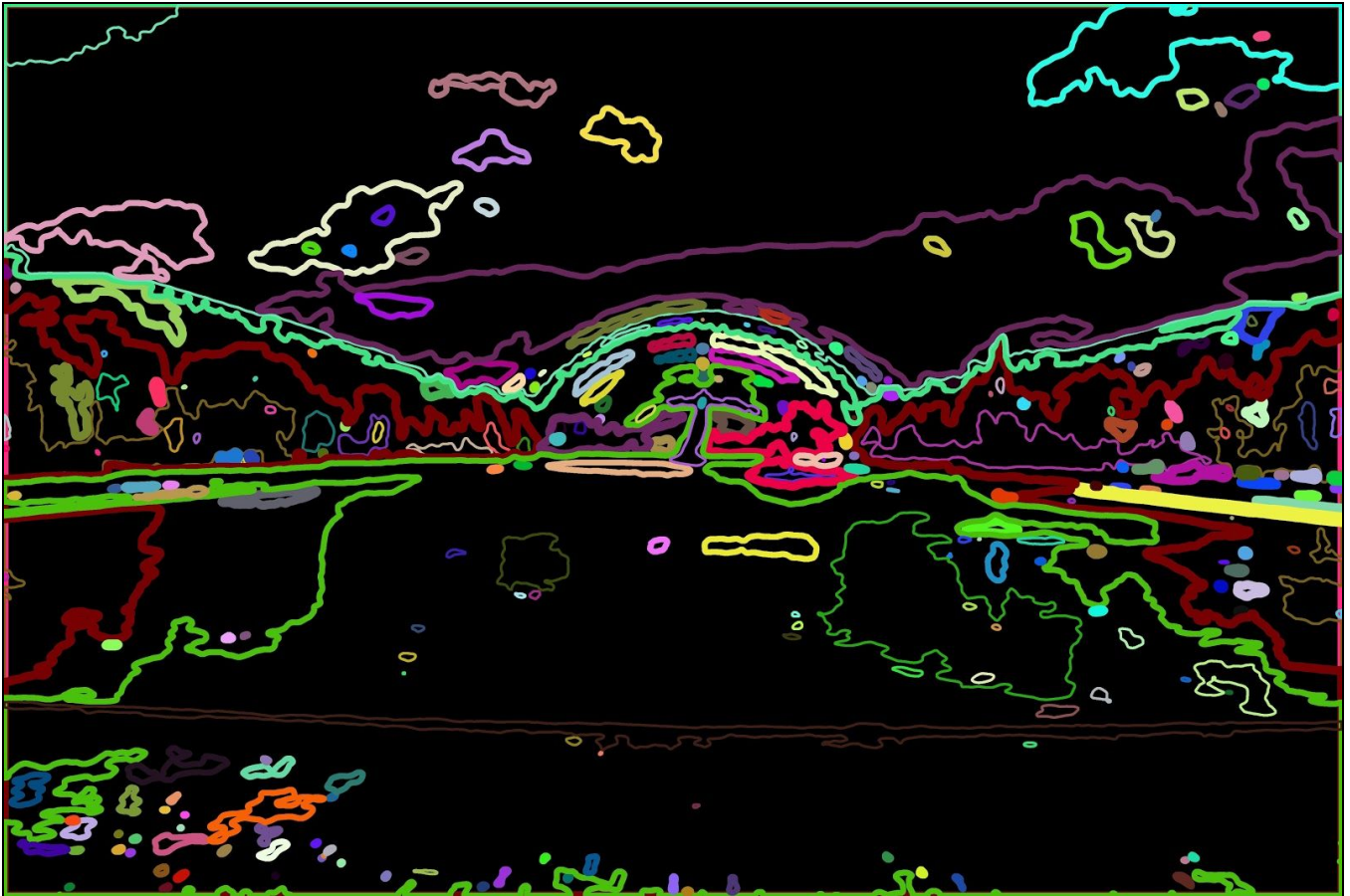
The source code for this program is also hosted on GitHub at the following link:
https://github.com/jjones646/mkneon

Workflow

- Convert to grayscale
- Randomly threshold image multiple times
- Clean up thresholded image with erode & dilate
- Use OpenCV's findContours API
- Iterate over each set of contours & apply a random stroke width and a random color

Credits

The core contour extraction part of the program was heavily based on this tutorial:
http://www.pyimagesearch.com/2015/03/30/accessing-the-raspberry-pi-camera-with-opencv-and-python/

Artistic/Technical Emphasis

Artistic: 35%
Technical: 15%

While this project contains some technical details about how the output image is generated, most of the technical details in doing so is just a few OpenCV calls. The creative part of this program is how it uses the contour data to construct a neon-type image. For this reason, I base most of the credit on the artistic side.