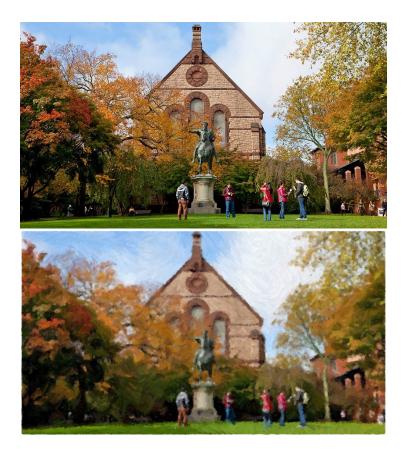Mehek Jethani
CS Capstone Abstract

Impressionist Paintings From Photos and Videos

Inspired by the paper "Processing Images and Video for An Impressionist Effect" by Peter Litwinowicz, this project implements a method of converting photographs and videos into impressionist-style painted images Python using OpenCV. The process involves sampling pixels at spaced intervals around the image paints angled rectangles at each point in a random order using colors picked from the image. Strokes are oriented based on gradient information to create a more natural brush flow and are clipped at edges to preserve detail and shapes in the image. Different brush masks can be provided to create texture variations. This approach is expanded to convert videos as well, using optical flow to selectively repaint parts of the image based on movement for efficiency and frame-to-frame coherence.