Alexandru-Iulian Constantinescu
ACES 2022

SDPT & PAO project

Task: Focus evaluator + edge enhancer: sweep an image by H and W and get a score of pixel-to-pixel delta. Increase the large numbers and decrease the small numbers to fit all the color space, without overflow

Figure 1: Cat image before applying edge enhancement

Figure 2: Cat image after applying edge enhancement

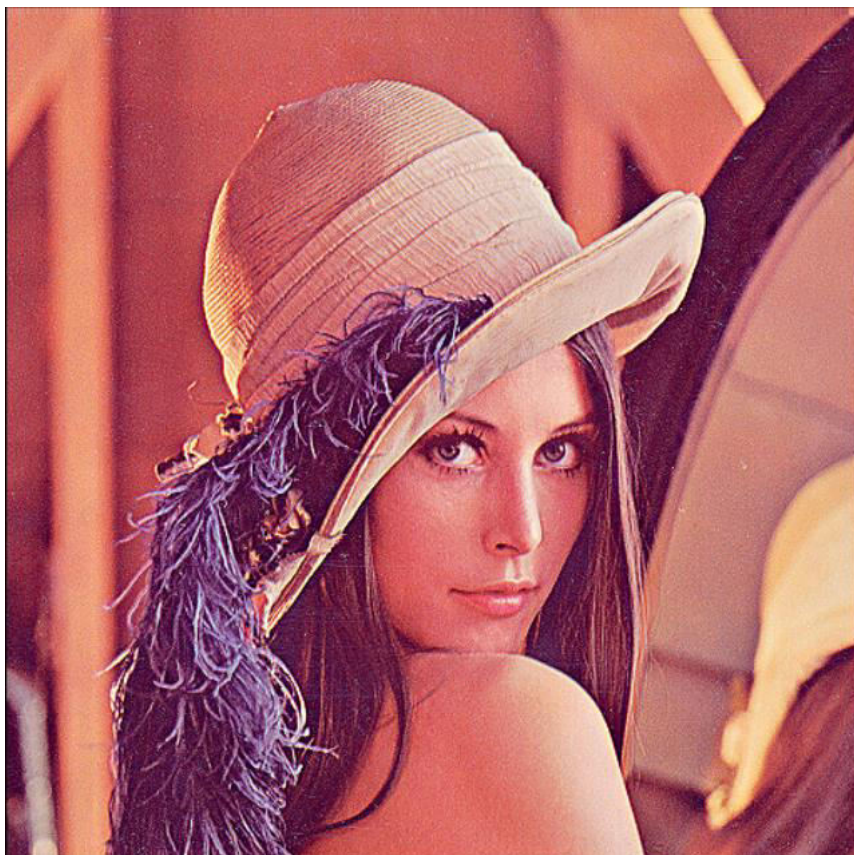Figure 3: Lena image before applying edge enhancement

Figure 4: Lena image before applying edge enhancement

Figure 5: Time for the processing part without using OpenMP

Figure 6: Time for the processing part after using using OpenMP on

the first and third for loops in the processing code

Code:

https://github.com/constAlexandru/Alexandru-Iulian-Constantinescu-project-ACES-2021-2022

Running the code example:

      make

      ./prog image_cat.png

Bibliography:

      SDPT course notes

      PAO course notes

      https://en.wikipedia.org/wiki/Edge_enhancement

      http://www.libpng.org/pub/png/libpng-1.2.5-manual.html

      https://gist.github.com/niw/5963798

      https://stackoverflow.com/questions/60291626/c-omp-no-significant-improvement