

Final exam: Photomosaic

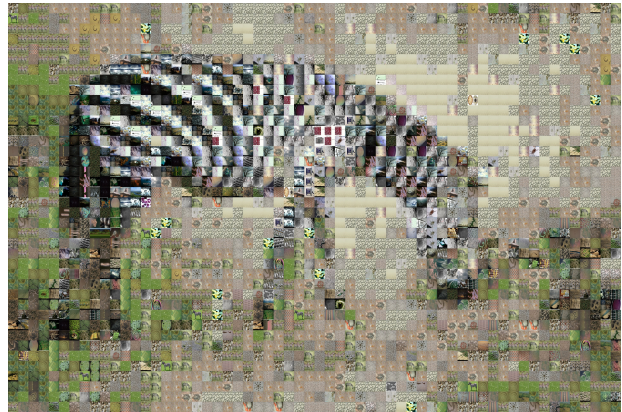
Note

All documents allowed. No code is required, but pseudo-code might be provided.

1 Introduction



(a) Original image.



(b) Mosaic image.

Figure 1: Mosaic example.

A photomosaic is composed of small images, stored in a database (a high number of images is required), and smartly positionned in order to correctly represent the original background image. The objective is to create a program that generates such a mosaic.

2 Requirements (20 points)



Propose a method in order to construct such a mosaic.

- Detail the different steps of the algorithm.
- Emphasize the use of geometry in this context.
- Mention the computational complexity when necessary.