Abstract

Due to the technology improvement, the size of digital image database becomes larger. It's making the efforts to arrange it becomes harder. With the increase in the use of CBIR, the need for annotated image is also increase. To manually annotate a large image database we need a lot of work to do. To simplified it we can use auto-annotation system that auto-annotated image with some keywords.

The goal of this final task is to analyze the using of Expectation Maximization method for image annotation system. From the implementation we can see that this system has good value in accuration for dataset that have image with same domain. The system give out the value of 0.34 for accuration in dataset with large picture and 0.53 for accuration in dataset with selected image. It is also known that the system give the good value for accuration in dataset wits selected labels, it's give out the value of 0.5 for accuration in that dataset.

So, now we can conclude that Expectation Maximization method can be implemented for auto-annotating image and give the good result.

Keywords: *Auto-annotation, Expectation Maximization,* CBIR.