UNIVERSITI TEKNOLOGI MARA

AUTOMATIC IMAGE ANNOTATION USING COLOR SEGMENTATION

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MAY 2009

ACKNOWLEDGEMENT

First of all, all praises and thanks to Allah, Lord of al-Mighty, for His Guidance and will, for the revelation of some of His knowledge for me in the successful to write this research.

Many thanks to my beloved mother who never quit in giving me full support, understanding and courage throughout the research without hassle. Thanks also to my lovely family and special friends for always supporting me.

This research would also not be possible and successful without the help and support from my supervisor, Assoc. Prof. Dr. Nursuriati Jamil and course coordinator, Dr. Siti Salwa Salleh. Many thanks to them for giving instructions, advices, motivation, support and guide the research in obtaining a good research.

Finally, a deepest gratitude goes to my course colleagues of CS230 for their help and others who have, in one way or others, given me invaluable help, assistance and advice. And to the respondents for the cooperation they gave. Last but not least, to the seniors who have shared their knowledge. Thank you very much.

ABSTRACT

Image can be described as photographed, painted or sculptured. Nowadays, images are extremely shared throughout the Internet. Annotating or captioning can be used to classify images. However, manual annotation is time consuming for large database and there is no standard in caption an image by manual annotation because it is based on human perception. The objectives of this project are to implement automatic annotation for images using K-means clustering, to develop an automatic image annotation prototype using color segmentation and to test the efficiency of the automatic image annotation prototype. The scope of this project is digital image of beach photographs with JPegs format. This project is implemented using a basic K-Means clustering as the algorithm for color segmentation and using direct technique to annotate the colors with the appropriate words by using predefined colors. The color model used is RGB (Red, Blue, Green) color model. The experimental results show that the images would be captioned with SKY, SEA, BEACH, GRASS, TREE, HILL, ROCK or CLOUD. In the future, this project needs enhancement to produce better result with implementing advance clustering techniques.

Keywords: Image annotation, Captioning, Clustering, K-Means, RGB Color

TABLE OF CONTENTS