Image Retrieval Using Discrete Cosine Transform of Diagonal Projections

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Abstract : With the vast visual contents of social media and Internet applications, fast and simple image-retrieval systems are necessary. Content-based image-retrieval methods are suitable even though the AI methods start becoming dominant. In this study, a simple and efficient method is presented. An image is binarized and then divided diagonally into two triangles. The projections along both sides of the diagonal are calculated. Discrete cosine transform is applied to these projections, and few coefficients are retained. The Euclidean distance method is then used to search for the image in a dataset of images. The method takes a fraction of a second to retrieve an image from a dataset of 1327 images.