

A Survey of Four Popular Techniques used in Face Detection

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Abstract—In this paper we explored four popular techniques used in face detection. Eigenface and fisherface are well-known subspace methods for dimension reduction, Support Vector Machine(SVM) is a widely used classifier over the past decade. We also looked into a relatively young but very powerful method, Sparse Representation-based Classification(SRC). Experiments and comparisons were made among these four techniques.

I. INTRODUCTION

II. METHODS

- A. *Eigenface*
- B. *Fisherface*
- C. *Support Vector Machine*
- D. *Sparse Representation-based Classification*

III. EXPERIMENTAL RESULTS

- A. *Distribution of Projected Samples*
- B. *Computation Complexity*
- C. *Influence of k*
- D. *Influence of training set size*

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IV. CONCLUSION

The conclusion goes here.

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