Impact of Occlusion Removal on PCA and LDA for Iris Recognition
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Person Identification by Iris Recognition

Database Matching
Person Identification

Image Segmentation & Occlusion Removal

1. Pupil Segmentation
2. Iris Segmentation
3. Iris Normalization
4. Occlusion Removal

- Largest connected shape
- Circular Hough Transform
- Iris features preserved using with varying sizes
- Option A: Keep As-Is
- Option B: Keep Left Side Only
- Option C: Eyelash & Eyelid Removal using Parabolas

- Control group for experimental results
- Removes upper eyelashes
- Dilate with 4x4 square
- Fit parabolic on each side

PCA and Fisher LDA Analysis

- PCA eigenvectors using covariance matrix S
- LDA eigenvectors using RB and RW

Raw Image Data
LDA Projections

Experimental Results

Eyelash removal improves results slightly; equal or worse performance to Option B

[Links to databases and resources for further reading]