

CS 754: Advanced Image Processing

Project Proposal

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PROJECT TITLE:

Implementing Low-rank matrix completion algorithm for Video denoising and comparing it with other denoising algorithms like PCA and VBM3D method.

MAIN REFERENCE PAPER:

"Robust video denoising using low rank matrix completion"

by Hui Ji, Chaoqiang Liu, Zuowei Shen, Yuhong Xu.

Link to the paper: <https://ieeexplore.ieee.org/document/5539849>

DATA SET TO BE USED:

The data set can be accessed at: <https://media.xiph.org/video/derf/>

VALIDATION STRATEGY:

We will compare our results to that from the methods with impulsive noise pre-processing, like PCA and VBM3D, with respect to their PSNR values (Peak Signal to Noise Ratio) and also visually.
