**CSE585/EE555:  Digital Image Processing II**

**Computer Project # 2:**

**Nonlinear Filtering and Anisotropic Diffusion**

**Yanxi Yang, Jiuchao Yin, Hongjie Liu**

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1. **Objectives**

* Study the algorithms and design different non-linear filters with given neighborhood and expecting functions: mean, median, alpha-trim, sigma, symmetric nearest-neighbor mean, and anisotropic diffusion.
* Get familiar with gray-scale image histograms and extract useful information from the histograms.
* Learn how to segment images from applying filters and read histograms by manually setting the threshold.
* Give observation of single iteration vs repeated application of filters on real-world images.
* Evaluate the performance of different algorithms with different parameters of anisotropic diffusion.

1. **methods.**

**list:**

Flow chart: 