

## Info on Class Project

You will need to find a professional paper from the last 3 years (according to publication date), which is related to the course theme (image and data analysis), includes an algorithm that you can code (or has an available code online) and of real interest to you (you should really like it and try to come up with ideas of extending it).

The project will include 1) summary of the algorithm and other components in the paper (25% of grade); 2) experimentation with code on various relevant data sets, which are different than the ones in the paper; also include comparisons with other algorithms (50%); 3) discussion of possible extensions and further applications of this work (25%); 4) implementation of improvements of the algorithm (which were discussed in the previous part) and their careful testing on related data (additional 20% bonus points)

Before you pursue the project, I need to approve it.

Suggested journals to find papers in alphabetical order (though you can try other ones and even very recent unpublished preprints): applied and computational harmonic analysis, foundations of computational mathematics, IEEE transactions on image processing, IEEE transactions on pattern analysis and machine intelligence, information and inference, journal of machine learning research, journal of mathematical imaging and vision, neural computation, SIAM journal of imaging science. You may also try conference papers of the following conferences: CVPR, ICCV, ICML, KDD, NIPS

Deadline to submit the paper on your project: May 13<sup>th</sup>, 1:30pm (can submit before exam).