

Guidelines for the project

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TBSI

- Students can work alone or in pairs, but need to delineate their respective contributions clearly
- Each group **must**
- + Choose a topic along the list provided below
- + Describe the topic in less than 10 slides
- + Choose one paper to read and comment on (10 slides max)
- + Implement an example taken from the paper, or a related one; the example should involve a comparison with a "baseline"
- + Present to the class in 20 minutes, on August 14, 2020

Topics:

- Convex optimization and applications (eg, SOCP for robotics)
- Robust optimization and applications
- Optimization models for machine learning (pref. not about algorithms, which was not the focus of this class): eg, robust PCA
- Applications in ML: NLP, word embeddings, PCA and variants, Outlier detection
- Applications at large: energy management, control systems, logistics and supply chain, finance

Example:

Paper: <https://arxiv.org/abs/0912.3599>

Project: try one the examples shown in the paper, or any new one.