

Computer Vision

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MoSIG M2
Project 4

Fall Semester
12 Nov 2020

Performance Evaluation of Face Tracking in Video Sequences

The objective for this exercise is to provide experimental performance evaluation for a system for tracking faces in video sequences. Your face tracking system may be implemented using your best MLP face detector implemented in previous projects, or an original implementation of a face detection algorithm, or a face detector recovered from the internet. If you use a face detector recovered from the internet you must identify the source and clearly describe the algorithm used by the detector.

Your face tracking system is to be evaluated with a subset of the AVDIAR video sequences available on the course web site (or at <https://team.inria.fr/perception/avdiar/>). Evaluation with other data sets is a plus. It is recommended that you re-train (or tune) your face detector using a subset of the video sequences in the AVDIAR data set. In this case, the sequences used for training should not be part of the test set used for evaluation.

If you use adaptive background subtraction with your technique, note that the first few frames of the first sequence (Seq01-1P-S0M1) contains empty images that can be used to initialise your adaptive background.

Performance evaluation metrics for face tracking should include error rates, frequency of lost track, Jitter (average distance of estimated position and size from true position and size), and any other appropriate measure.

Document your work in the Jupyter Notebook by commenting it and send the .ipynb file to: James.Crowley@inria.fr, Nachwa.Aboubakr@inria.fr, Yangtao.Wang@inria.fr. Results are due before class on Thursday 12 nov.