
cvml Documentation

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A library of common tools needed for machine learning with a focus on action recognition.


```
cvml.plot.plot_confusion_matrix(cnf_matrix, classes, normalize=True, title='Confusion  
matrix', ylabel='True class', xlabel='Predicted class',  
cmap='Blues', colorbar=True, colorbar_aspect_ratio=None,  
classes_per_inch=5, **kwargs)
```

Plot a confusion matrix. Normalization can be applied by setting *normalize=True*.

kwargs are parsed on to the *plt.imshow* function.

Source: http://scikit-learn.org/stable/auto_examples/model_selection/plot_confusion_matrix.html#sphx-glr-auto-examples-model-selection-plot-confusion-matrix-py


```
cvml.video.stitch_frames (frame_dir: pathlib.Path, output_file: pathlib.Path, start_idx:
                          int, stop_idx: int, step=1, fps=59.94, overwrite=False,
                          frame_pattern=re.compile('.*jpg', re.IGNORECASE))
```

Stitch a directory containing sequentially numbered frames into a video using FFMpeg

Parameters

- **frame_dir** – directory whose children are all frames
- **output_file** – path to video file composed from stitching all the frames in `frame_dir`
- **start_idx** – index of the first frame to stitch after listing and sorting all frames with `list.sort()`
- **stop_idx** – index of the last frame to stitch after listing and sorting all frames with `list.sort()`, use -1 to calculate the last frame based on the `start_idx` and `step`
- **step** – step size between adjacent frames (use 1 for stitching all frames, 2 for skipping every other frame, -1 for reversing the video)
- **fps** – frames per second for the resulting video
- **overwrite** – overwrite the `output_file` if it already exists?
- **frame_pattern** – python regex pattern for selecting a subset of files, defaults to selecting everything

Returns None

CHAPTER 3

Indices and tables

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