

# Machine Learning for Computer Vision Coursework 1

## Face Recognition by PCA

David Angelov  
MEng Electrical and Electronic Engineering  
Imperial College London  
david.angelov12@imperial.ac.uk

Huaqi Qiu  
MSc Communication and Signal Processing  
Imperial College London  
h.qiu15@imperial.ac.uk

### 1. Introduction

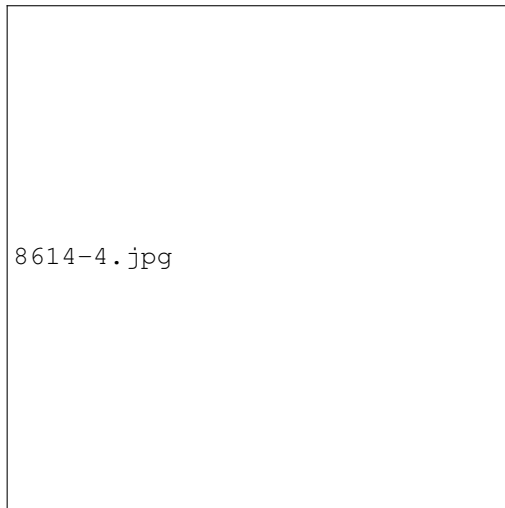


Figure 1. Example of caption. It is set in Roman so that mathematics (always set in Roman:  $B \sin A = A \sin B$ ) may be included without an ugly clash.

### 2. Formatting your paper

#### References

- [1] A. Alpher. Frobnication. *Journal of Foo*, 12(1):234–778, 2002.
- [2] A. Alpher and J. P. N. Fotheringham-Smythe. Frobnication revisited. *Journal of Foo*, 13(1):234–778, 2003.
- [3] A. Alpher, J. P. N. Fotheringham-Smythe, and G. Gamow. Can a machine frobnicate? *Journal of Foo*, 14(1):234–778, 2004.
- [4] Authors. The frobnicatable foo filter, 2014. Face and Gesture submission ID 324. Supplied as additional material fg324.pdf.
- [5] Authors. Frobnication tutorial, 2014. Supplied as additional material tr.pdf.

## A. Appendix 1 Matlab Code

### A.1. Init.m

```
% Please run this script under the root folder

clearvars -except N;
close all;

% addpaths
addpath( './internal ');
addpath( './external ');
% addpath( './external/libsvm-3.18/matlab ');

% initialise external libraries
run('external/vlfeat-0.9.18/toolbox/vl_setup.m'); % vlfeat library
% cd('external/libsvm-3.18/matlab '); % libsvm library
% run('make ');
% cd( '../.. ');

% tested on Ubuntu 12.04, 64-bit, Intel Core i7-3820 CPU @ 3.60GHz 8
```

### B. matlab code part 2

```
% Please run this script under the root folder

clearvars -except N;
close all;

% addpaths
addpath( './internal ');
addpath( './external ');
% addpath( './external/libsvm-3.18/matlab ');

% initialise external libraries
run('external/vlfeat-0.9.18/toolbox/vl_setup.m'); % vlfeat library
% cd('external/libsvm-3.18/matlab '); % libsvm library
% run('make ');
% cd( '../.. ');

% tested on Ubuntu 12.04, 64-bit, Intel Core i7-3820 CPU @ 3.60GHz 8
```