CP4 report: [TODO YOUR NAME HERE]

Collaboration Statement:

I discussed ideas with these individuals:

- None
- . . .

I consulted the following resources:

- Bishop Textbook
- Piazza
- . . .

By submitting this assignment, I affirm this is my own original work that abides by the course collaboration policy.

Links: [CP4 instructions] [Course collaboration policy]

Contents

1a: EM Validation Likelihood vs. Iteration

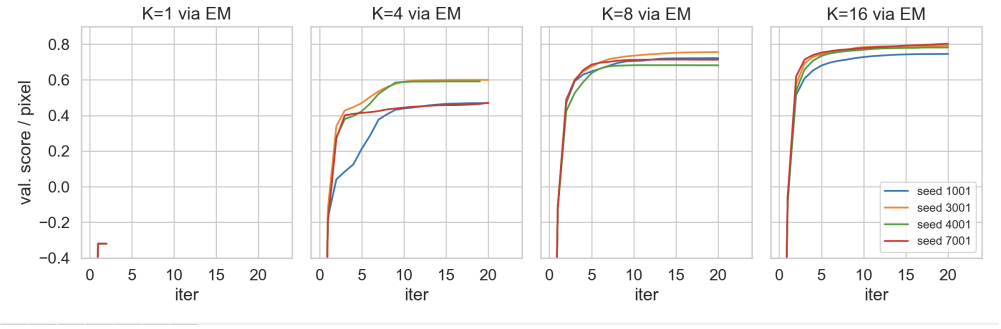

Fig. 1a: The model with K=16 seems to do best on this data because its EM validation likelihood across iterations is higher than all the other models.

1b: Visualization of best EM parameters with K=8

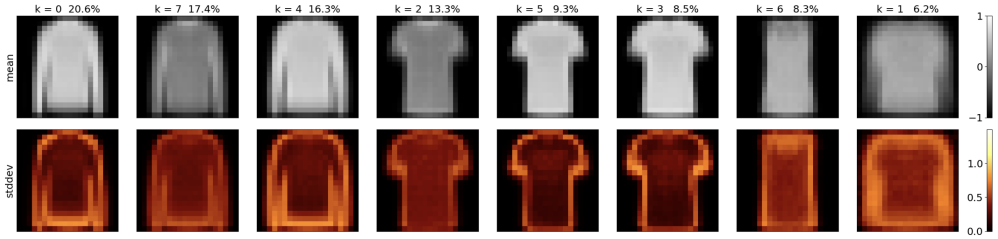

Fig. 1b: About 54.3 % is long sleeves, approximately 31.1 % is short sleeves, and 14.5 % is no sleeves.

1c: Heldout scores versus K, with caption

	valid	test
$K = 1$	-0.320	-0.347
$K = 4$	-670.636	-841.881
$K = 8$	-2391.922	-2532.880
$K = 16$	-5453.575	-5594.154

Table 1: Computed log likelihood per pixel across different K for both the validation and test sets,