DEEP LEARNING THE RELATIONSHIP BETWEEN VISUAL AND TEXTUAL DATA

Patrick Poirson
University of South Alabama
Given an image
Find 25 similar images
Retrieve their tags
Use the given image and retrieved tags as input to SDA
Measure reconstruction error
Take 5 lowest scores and their tags
Generating Tags

- Use error to get weights: $w_i = e^{-error}$
- Tag for given image: $tag = \sum w_i \times tag_i$
- Generating tags is used in unimodal classification and retrieval
Code for experiment is done
Ran last night to get results for today
Program crashed
Fixed the bug but the code is still running
Next Steps

- Pretrain model again
  - Results depend on this
- Run classification experiments again on new model
- Finish code for retrieval