Goldings Computer Vision Assignment 2

• What are the contributions of this paper? - 10%

     This paper shows that angular margin can be applied to open-set facial recognition. It shows this by proposing the use of angular softmax loss for CNN's to learn facial features. It does this by using a parameter *m*, which is adjusted by the angular softmax loss function, and the lower bounds of *m* are used to approximate facial recognition criteria.

• Illustrate the three properties of the proposed A-Softmax. - 10%

- A-softmax defines an adjustable angular margin learning task. As the adjustable parameter *m* becomes smaller, is constrains the intra-class angular distance, which is used for classification.

- In binary-class case, $m_{min} >= 2 + \sqrt{3}$

- If W_i, $\forall I$ are uniformly spaced, then $m_{min} >= \sqrt{3}$

• What is the evaluative metric used for the LFW dataset? How does it calculate? - 10%

     The evaluative metric for the LFW dataset is the angular metric, which is calculated as the cosine distance between two features of an original face and itself horizontally flipped.