• **Summary of the report.**

This report tries to use a deep learning method for art forgery detection, which is a binary classification task. A dataset contains real and fake sketches of Raphael is adopted. They use ResNet and ScatNet for feature extraction. Based on these features, they implement Logistic Regression, Support Vector Machine Linear Discriminant Analysis and Random Forest for image classification. They also analyzed the relationship between crop size. After finishing their implementation, they also performed prediction on disputed paintings.

• **Describe the strengths of the report.**

+: This task is practical and meaningful.
+: Detailed data augmentation is used.

• **Describe the weaknesses of the report.**

-: The analysis for the relationship between crop size and accuracy is confusing. In validation dataset, some F1-scores are so low (0.17). Besides, why does the accuracy changes greatly between 288-651?
-: The performance is not really good. The probability for the predictions on disputed painting is quite close to a random guess of 0.5.

• **Evaluation on Clarity and quality of writing (1-5)**

3. The figure is confusing, although it says “for some range of size …” which means the x-axis should be the size. But it would be better if you add title and axis title.

• **Evaluation on Technical Quality (1-5)**

3. I think the analysis for crop size is confusing. But many methods are adopted for image classification. It would be better if a single CNN is used.

• **Overall rating**

3

• **Confidence on your assessment (1-3)**

3