Quality Match

Bicycle Project Crowd Evaluation

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Contents

<u>Getting to know data</u>

Data

Image Distribution

General Analysis

Time Analysis

<u>Classification</u>

Image Classification

Examples of images

Accuracy comparison

Accuracy-Agreement

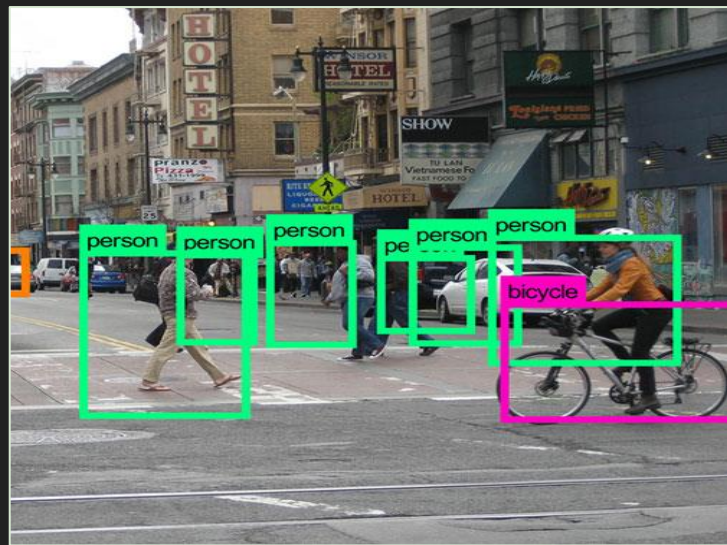**<u>Future Scope of work</u>**

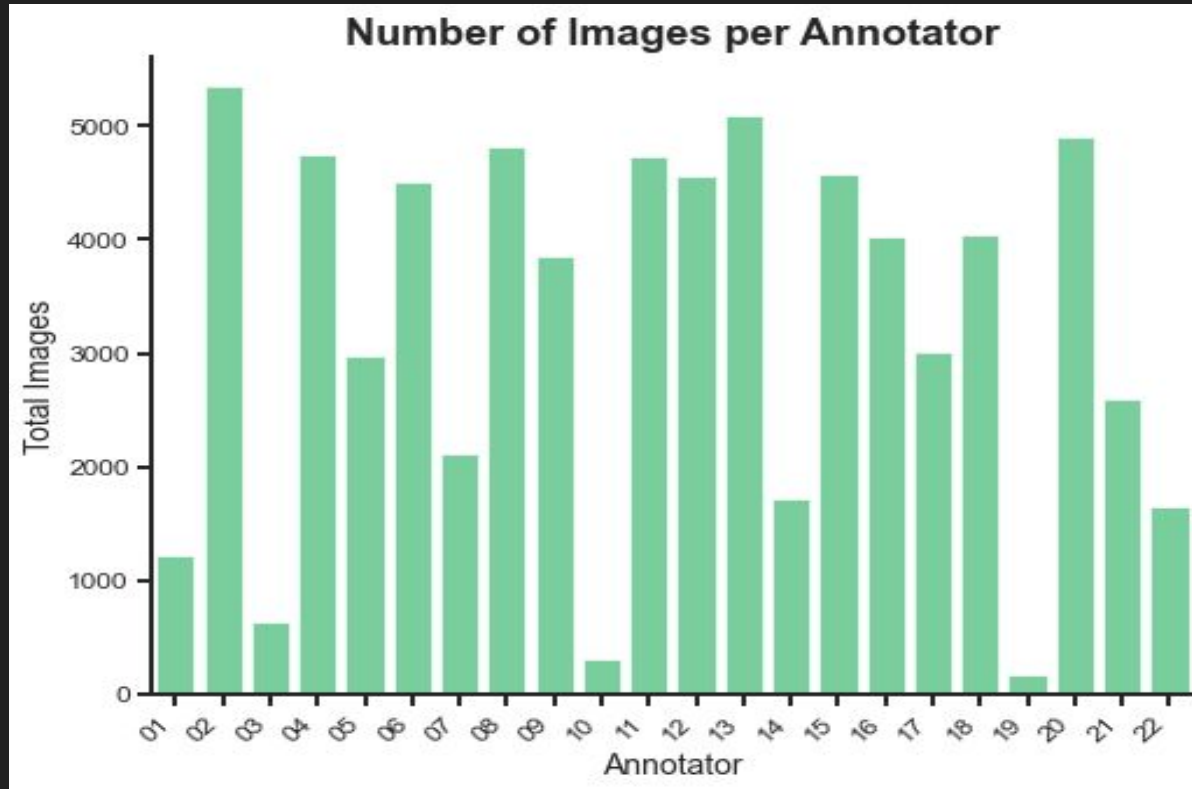Effective Metric Formula

Automated classification

Feedback channels

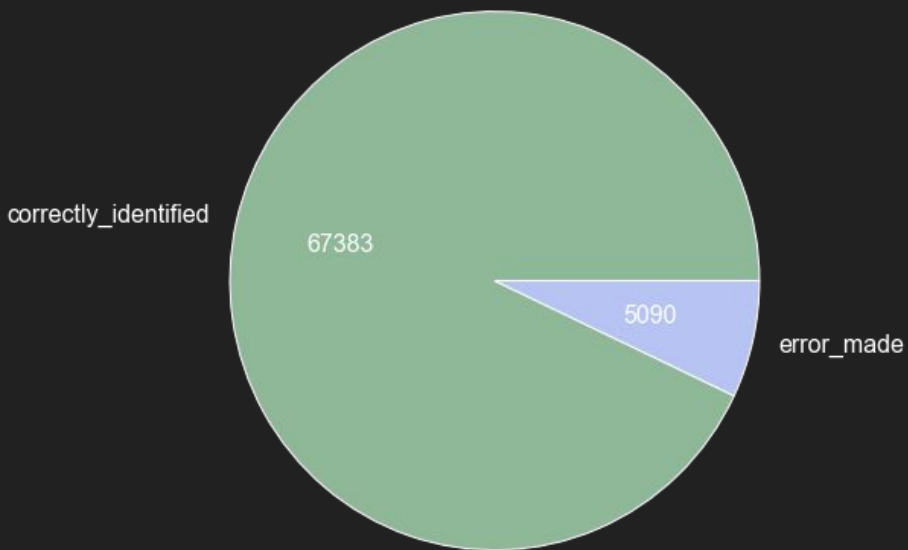# Introduction to data

Question: "Do you see a bicycle?"

❖ Number of tasks: 9087

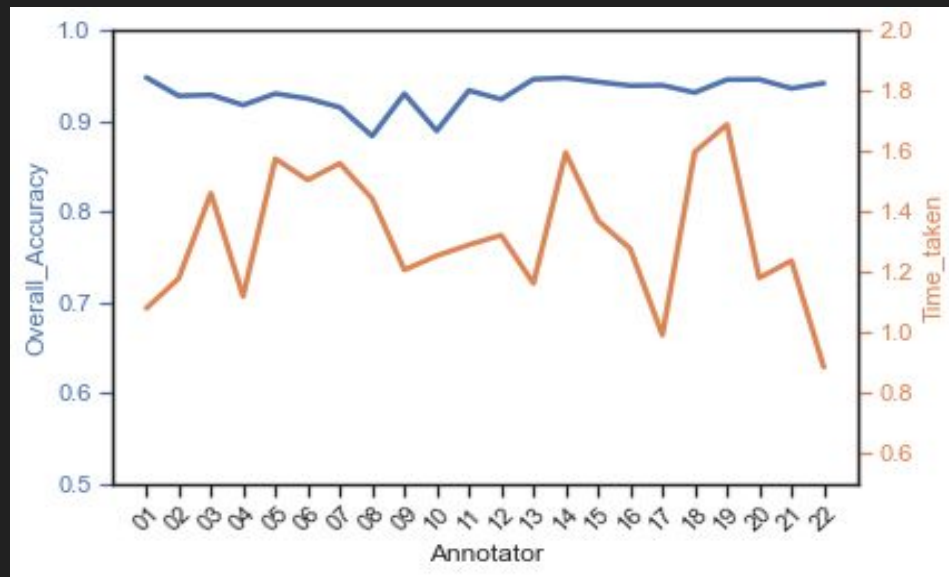❖ Number of Annotators: 22

❖ Each task annotated: 10 times

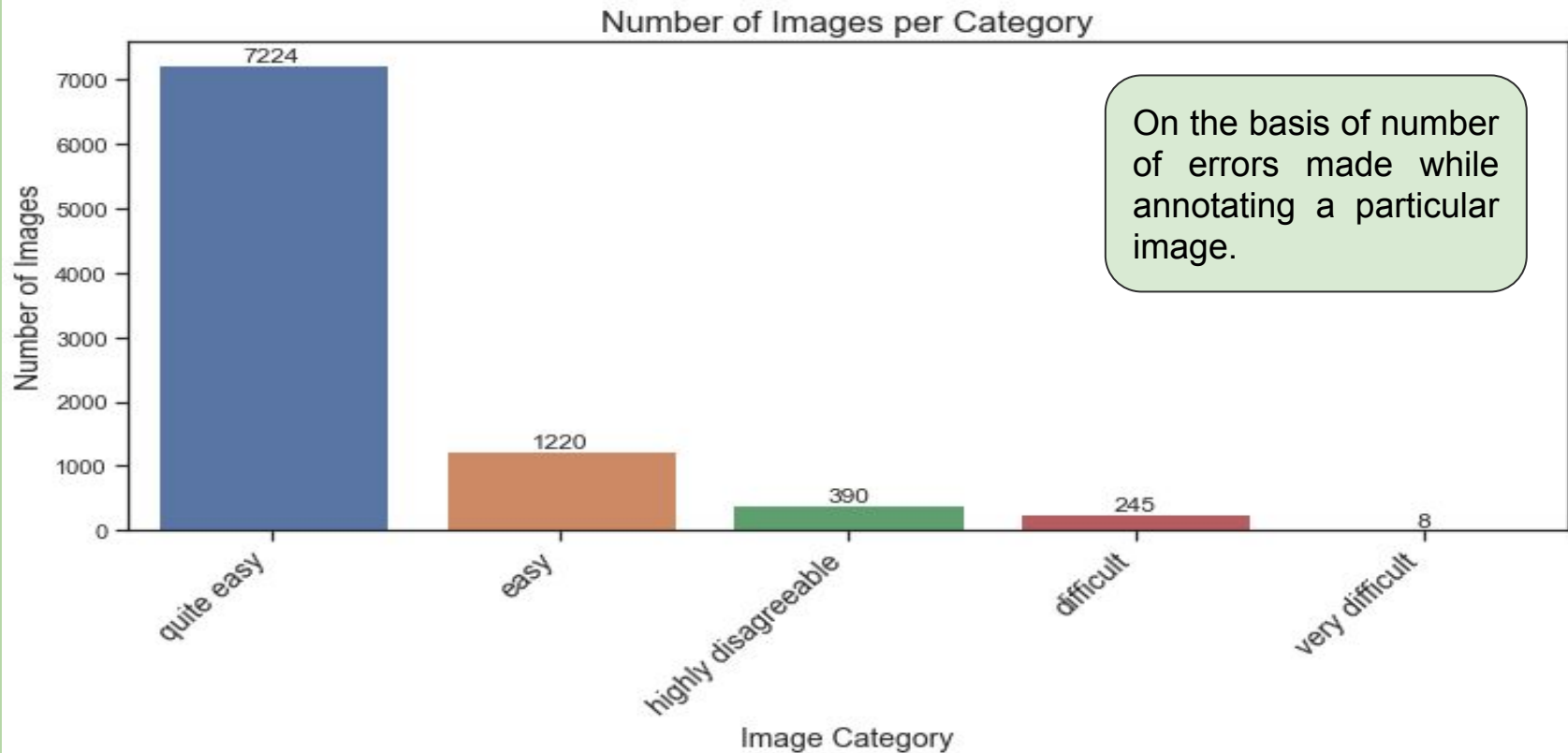# Distribution of Images across Annotators

Overall Annotation Results
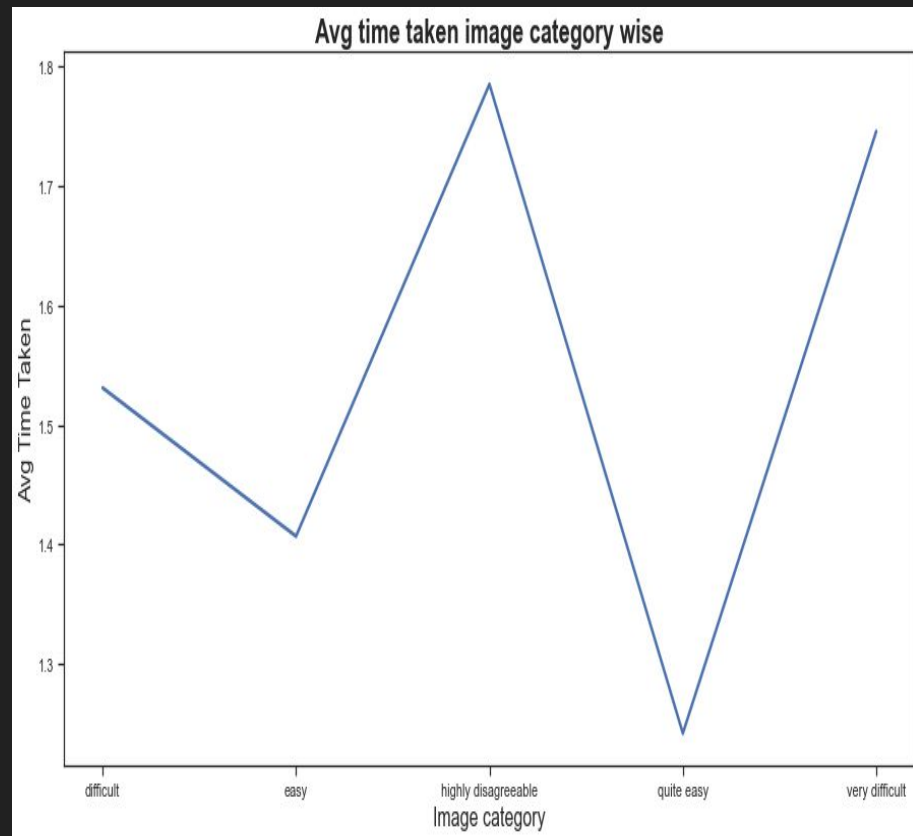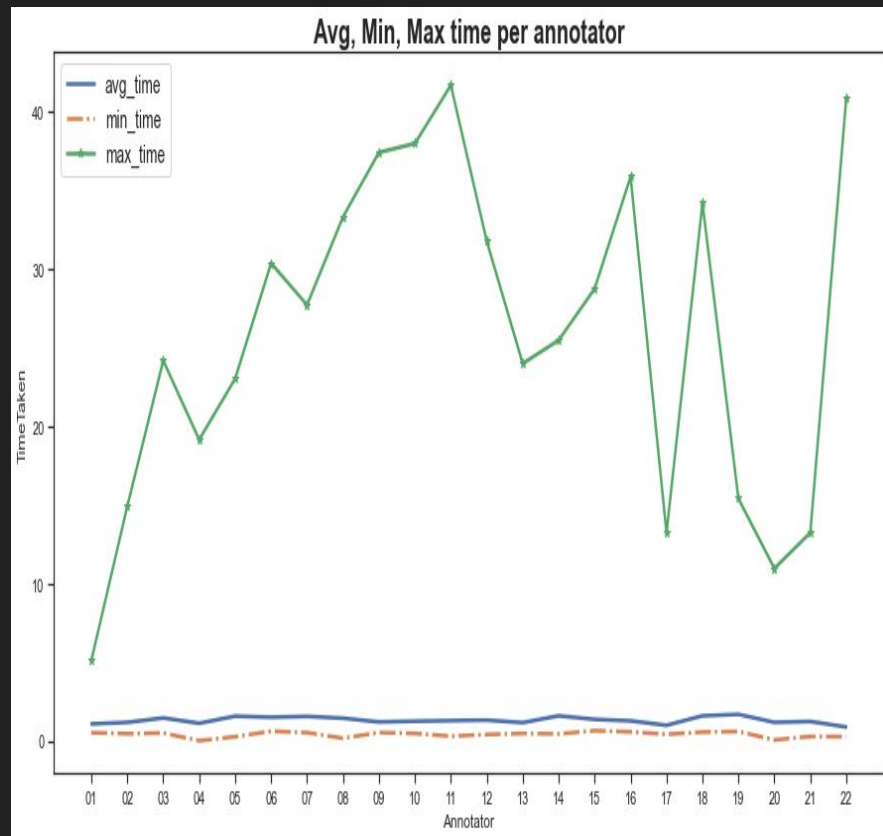

Total annotations

Accuracy vs Speed

Image Classification

Number of Images per Category

On the basis of number of errors made while annotating a particular image.

Time Taken by Annotators

Examples of Images Category wise

Quite Easy

Reference Output : True

Reference Output : False

Very Difficult

Reference Output : False

Reference Output : True

Easy

Reference Output :
True

Reference Output :
True

Highly Disagreeable

Reference Output :
False

Reference Output :
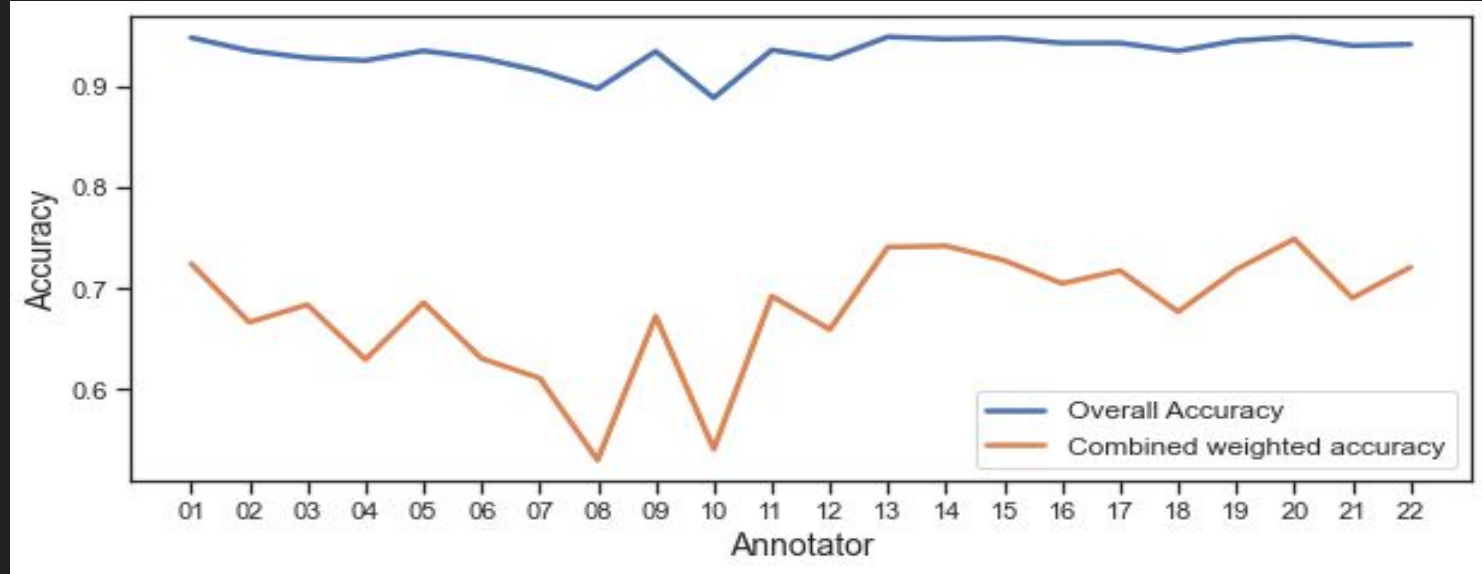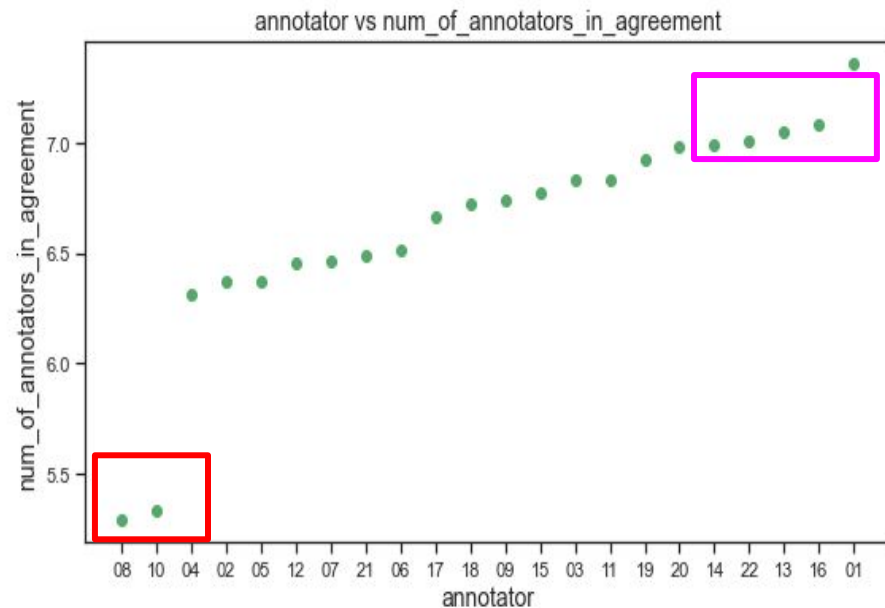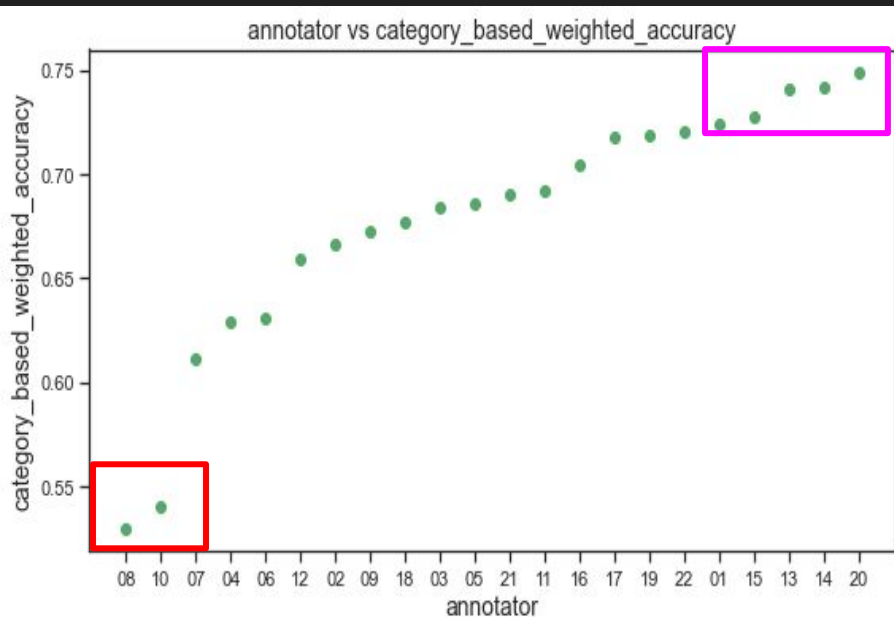False

Difficult

Reference Output :
True

Reference Output :
True

Focus Categories

Comparison of Overall accuracy and accuracy in focus categories

Category weighted accuracy & Agreement Distribution

Conclusion

❖ Effective Image Classification is necessary to differentiate between good and bad annotators.

❖ A combination metric of weighted accuracy and level of agreement helps in classification.

❖ Where there is high level of agreement among annotators in case of error, image scrutiny must be done.

❖ Although time taken seems associated with accuracy, nothing concrete can be concluded.

Limitations

❖ Limited information about the image properties.

❖ Less data where errors were made.

Further Scope of work

❖ Better image classification

❖ A proper metric formula to classify annotators using optimized accuracy calculator as well as level of agreement and consistency among annotators.

❖ Automated prototype that takes annotator features and classifies them.

❖ Regular learning and feedback channels for annotators to improve.

Thank You