G7 SHAO ZHIHAO

Topic: Pawpularity prediction from images and tabular data

Report: 3

Report is well written with proper grammar and features a good amount of figures and EDA. However, report is lacking in detail (details are only in the presentation), eg justification for optimizer choice and learning rate schedule would be useful (why Cosine Annealing Warm Restarts?) A brief introduction into Swin Transformer in the report would help readers understand how it works and why it is a suitable model for this problem. Kaggle test score should also be included, and (if necessary) some analysis on why there is a significant discrepancy between CV RMSE and test RMSE. A section on "future analysis" (different model types? different augmentation scheme? etc) besides just the conclusion would help the presenter clearly demonstrate which ideas may or may not be of use in similar projects.

Presentation: 4

Good delivery and clear pronunciation. Strong explanation of Swin transformers (a model previously applied to NLPs) and its strengths and weaknesses compared to the standard CNN, and how self attention mechanism reduces computational complexity. Slides are clear and well elaborated. GradCam visualisation to explain why Swin predicts the way it does was very intuitive and easy to understand although it would help readers understand the effectiveness and limitations of Swin better if it were also on the report.

Creativity: 4

Used unique voting regression ensemble method and feature engineering methods (PCA to generate 16 features of high feature importance.) Kaggle test score and best CV RMSE score of 17.881 is a good result and the distribution of the predicted values via Swin does not seem to be as imbalanced as the training set distribution. SOTA model Swin was used but attempts could have been made to further improve it, or at least show what wouldn't work.

Overall: 4
Confidence: 3