This project is completed by Po-Yi Chen and Qiujiang Jin.

Here is our write-up.

The paper we choose is full resolution image compression with recurrent neural networks. We achieved 88 points for the trivial data you give us. We know that the actual test score will be lower than that. Here are the reasons that we think may cause the failure of our implementation.

1. We use the dataset of MS-COCO and the size is 10k images. The training data is not as powerful as the training data they use in their paper. The quantity of the images is small and in their paper they took a random sample of 6 million 1280×720 images on the website.

2. Another reason may be that we just implemented the LSTM version of RNN. We didn't use GRU, Associate LSTM or Residual GRU. And We only did the one-shot version. We didn't try additive reconstruction or residual scaling. If we can try different methods we may improve our results.

3. The last reason may be that we only train 10 epochs dual to our limited GPU resources. If we have access to better computing resources, we can train with larger number of epochs, larger number of batch sizes and larger sizes of training data. This can help us get better results.

Last we must recognize that we reference a lot from the following codes
https://github.com/1zb/pytorch-image-comp-rnn
But we understand it thoroughly and implemented the project by ourselves.

Thank you very much.