

Errata for “ARSM: Augment-REINFORCE-Swap-Merge Estimator
for Gradient Backpropagation Through Categorical Variables,”
ICML 2019

For categorical VAE experiments in Section 4.2 :

- (i) Some algorithms used the greyscale pixel values of MNIST digits rather than their binarized values as the input to the encoder (we thank Wouter Kool for pointing this out).
- (ii) When computing the gradient estimation, the ARSM code contained a bug that would cancel out the gradient of the Kullback–Leibler regularization term of the ELBO.

We have made corrections to the corresponding code in Github, which have improved the numerical results, largely preserving the relative performance between different algorithms.