CLAIMS

1. A method for encoding an image, wherein a first neural network is used for decoding and a second neural network is used for encoding, the method further comprising:

obtaining the image;

determining an embedding vector by processing the image with the second neural network;

quantizing the embedding vector;

selecting a subset of parameters for fine-tuning a model of a first neural network based on the quantized embedding vector;

determining parameter updates for the selected subset of parameters based on a loss function, wherein the first neural network is updated using parameters updates for the selected subset of parameters; and

packaging the quantized embedding vector and information representative of the parameter updates.

2. The method of claim 1, wherein determining parameters updates is further based on a target output.

3. The method of claim 1 wherein selecting the subset of parameters is based on a gradient of the output of the model to select the parameters having the largest impact.

4. The method of claim 1 wherein the selecting the subset of parameters is based on a loss function using a reference-less metric determined based on the image

5. The method of claim 1, wherein the parameters are selected among a set comprising a bias of the model, a weight of the model, parameters of a non-linear function of the model, a subset of layers of the model, a specific layer of the model, the bias of a specific layer of the model, and a subset of neurons of the model.

6. The method of claim 1, wherein determining parameters updates is further based on the image.

7. A method for decoding an image comprising:

obtaining a quantized embedding vector and information representative of an update of a selected subset of parameters;

selecting a subset of parameters for fine-tuning a model of a neural network-based on the quantized embedding vector;

updating the model of the neural network-based on the update for the selected subset of parameters; and

determining an output image by processing the quantized embedding vector with the updated neural network.

8. The method according to claim 1 or 7 wherein the selection of the subset of parameters is independent from information representative of the parameters update.

9. A device for encoding an image, wherein a first neural network is used for decoding and a second neural network is used for encoding, the device comprising a processor configured to:

obtain the image;

determine an embedding vector by processing the image with the second neural network;

quantize the embedding vector;

select a subset of parameters for fine-tuning a model of a first neural network based on the quantized embedding vector;

determine parameter updates for the selected subset of parameters based on a loss function, wherein the first neural network is updated using parameters updates for the selected subset of parameters; and

package the quantized embedding vector and information representative of the parameter updates.

10. A device for decoding an image comprising a processor configured to:

obtain a quantized embedding vector and information representative of an update of a selected subset of parameters;

select a subset of parameters for fine-tuning a model of a neural network-based on the quantized embedding vector;

update the model of the neural network-based on the update for the selected subset of parameters; and

determine an output image by processing the quantized embedding vector with the updated neural network.

11. A computer program comprising program code instructions for implementing the method according to at least one of claims 1 or 7when executed by a processor.

12. A non-transitory computer readable medium comprising program code instructions for implementing the method according to at least one of claims 1 or 7 when executed by a processor.