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**Algorithm 2:** Training with iterative early stop cycle.

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**Input:**  $MODEL$  as the input model

**Input:**  $D_{train}$  as the training data set

**Input:**  $D_{val}$  as the validation data set

**Input:**  $N_I$  as the stop patience for iterative training cycle

**Input:**  $N_E$  as the early stop patience (epochs) for training

**Input:**  $B_{size}$  as the mini-batch size

**Output:**  $MODEL$  as the full-precision output model

// Initial training and evaluation

1  $Train(MODEL, D_{train}, D_{val}, N_E, B_{size})$

2  $mse_i \leftarrow Evaluate(MODEL, D_{val})$

3  $n_I \leftarrow 0$

4 **while**  $n_I < N_I$  **do**

    // Iterative early stop cycle

5  $Train(MODEL, D_{train}, D_{val}, N_E, B_{size})$

6  $mse_v \leftarrow Evaluate(MODEL, D_{val})$

7 **if**  $mse_v < mse_i$  **then**

8      $Update(MODEL)$

9      $mse_i \leftarrow mse_v$

10 **end**

11 **else**

12      $MODEL \leftarrow LoadPreviousWeights()$

13      $n_I \leftarrow n_I + 1$

14 **end**

15 **end**

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