

# Federated Averaging Algorithm

Server

Para

The  $i$ -th worker performs:

1. Receiving model parameters  $\mathbf{w}$  from the server.
2. Repeating the followings:
  - a) Using  $\mathbf{w}$  and its local data to compute gradient  $\mathbf{g}$ .
  - b) Local update:  $\mathbf{w} \leftarrow \mathbf{w} - \alpha \cdot \mathbf{g}$ .
3. Sending  $\tilde{\mathbf{w}}_i = \mathbf{w}$  to the server.

