Recent Advances in Communication Efficient Federated Learning

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Abstract:

Federated learning is a new distributed learning paradigm that can preserve data privacy in machine learning. One of the main challenges in federated learning is to reduce the communication costs for transmitting model parameters from local devices to the central server and vice versa. This talk presents some most recent work on communication efficient federated learning, including constructing compact local models, introducing heterogeneous parameter updating, and using ternary quantization. Finally, future directions of research in federated learning will be briefly discussed.

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