



Federated Learning Strategies for Machine Learning

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Message from the Guest Editors

Federated learning introduces new perspectives in machine learning by enabling model training across decentralised devices. Participants only share the model updates without exchanging local data samples in full compliance with the General Data Protection Regulation. This approach offers many advantages for large-scale applications, from preserving data privacy to providing faster training and effective learning transfer among models exposed to data collected in different environments.

Advanced techniques are still needed to integrate this paradigm into real-world scenarios and effectively address communication overhead issues, privacy and security vulnerabilities, the lack of standardisation, and model aggregation for non-independent and identically distributed data.

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