6/22/2020

ISN1

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**Wireless Federated Learning**

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Recent advances in the computing capabilities of edge devices have led to the possibility of training complex models at the network edge. In particular, there is significant interest in the field of federated learning (FL), a technology that enables distributed training of models on data held by multiple parties, while preserving the privacy of such data.

To improve the efficiency of FL at the wireless edge, hierarchical FL has been introduced, where local models are trained with the help of small cell base stations, while a global model is updated occasionally through the macro base station.

The aim of this project is to assess the impact of client mobility and non-IID data distribution across clients in hierarchical FL. We investigate multiple learning algorithms that have been developed in the FL and distributed learning literature, and discuss strategies to deal with non-IID data.

The results and analysis presented in this report are achieved by executing software simulations of edge model training on a network of devices.