Mô hình:

A diagram of a computer

Description automatically generated

Model: "LeNet\_5"

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Layer (type) Output Shape Param #

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conv2d\_13 (Conv2D) (None, 32, 32, 6) 456

average\_pooling2d\_4 (Avera (None, 16, 16, 6) 0

gePooling2D)

conv2d\_14 (Conv2D) (None, 12, 12, 16) 2416

average\_pooling2d\_5 (Avera (None, 6, 6, 16) 0

gePooling2D)

conv2d\_15 (Conv2D) (None, 2, 2, 120) 48120

flatten (Flatten) (None, 480) 0

dense\_17 (Dense) (None, 84) 40404

dropout\_12 (Dropout) (None, 84) 0

dense\_18 (Dense) (None, 10) 850

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Total params: 92246 (360.34 KB)

Trainable params: 92246 (360.34 KB)

Non-trainable params: 0 (0.00 Byte)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hyperparameters:

* SGD
* Lr= 0.001
* Loss = categorical\_crossentropy
* Batch size = 64

Config FL:

* 50 client
* Chọn 10 client mỗi round
* 500 round

Centrailized Results

A graph of two people

Description automatically generated

Accuracy: 0.5975

Alpha = 1

FedAvg

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**FedImp**

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