Individual Multiple Upload

Individual CIFAR Analysis

CIFAR Index

Enter index (0-49999)

Activation Function

Select Activation Function

Train

Train Random

Individual Multiple Upload

Multiple CIFAR Analysis

Beginning Index

Enter starting index (0-49999)

Range Size 2 images

Activation Function

Select Activation Function

Train Range

Train Random Range

Individual Multiple Upload

Upload Custom Images

Upload Images

Click to upload or drag and drop

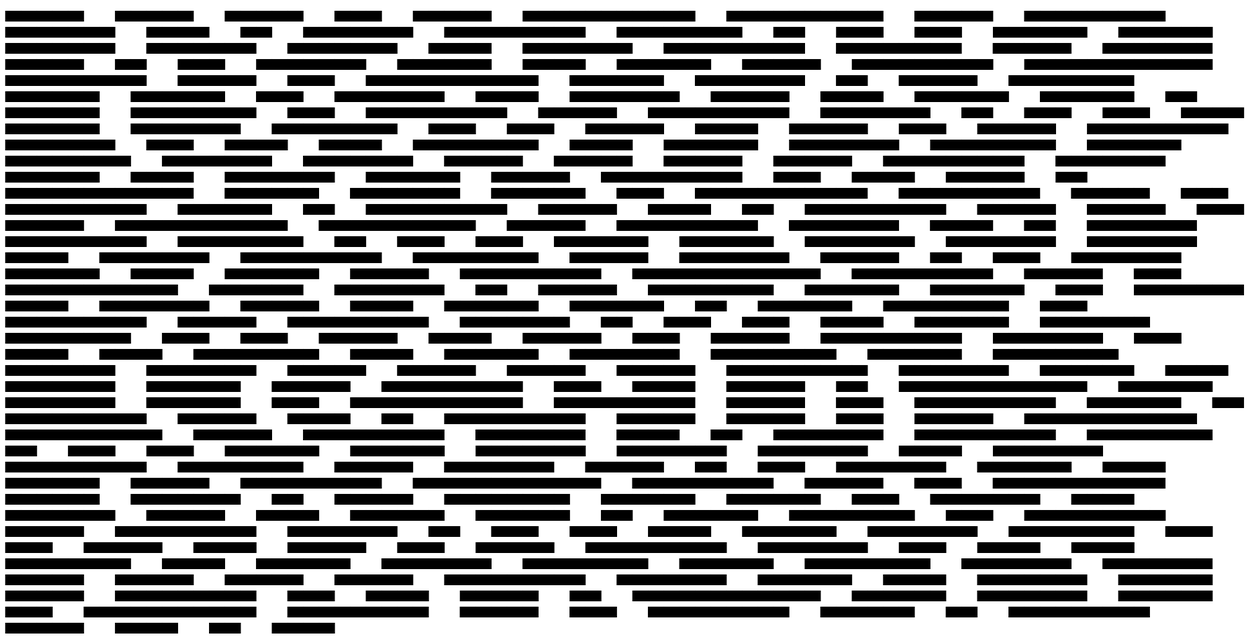
PNG, JPG or JPEG (32×32px recommended)

Activation Function

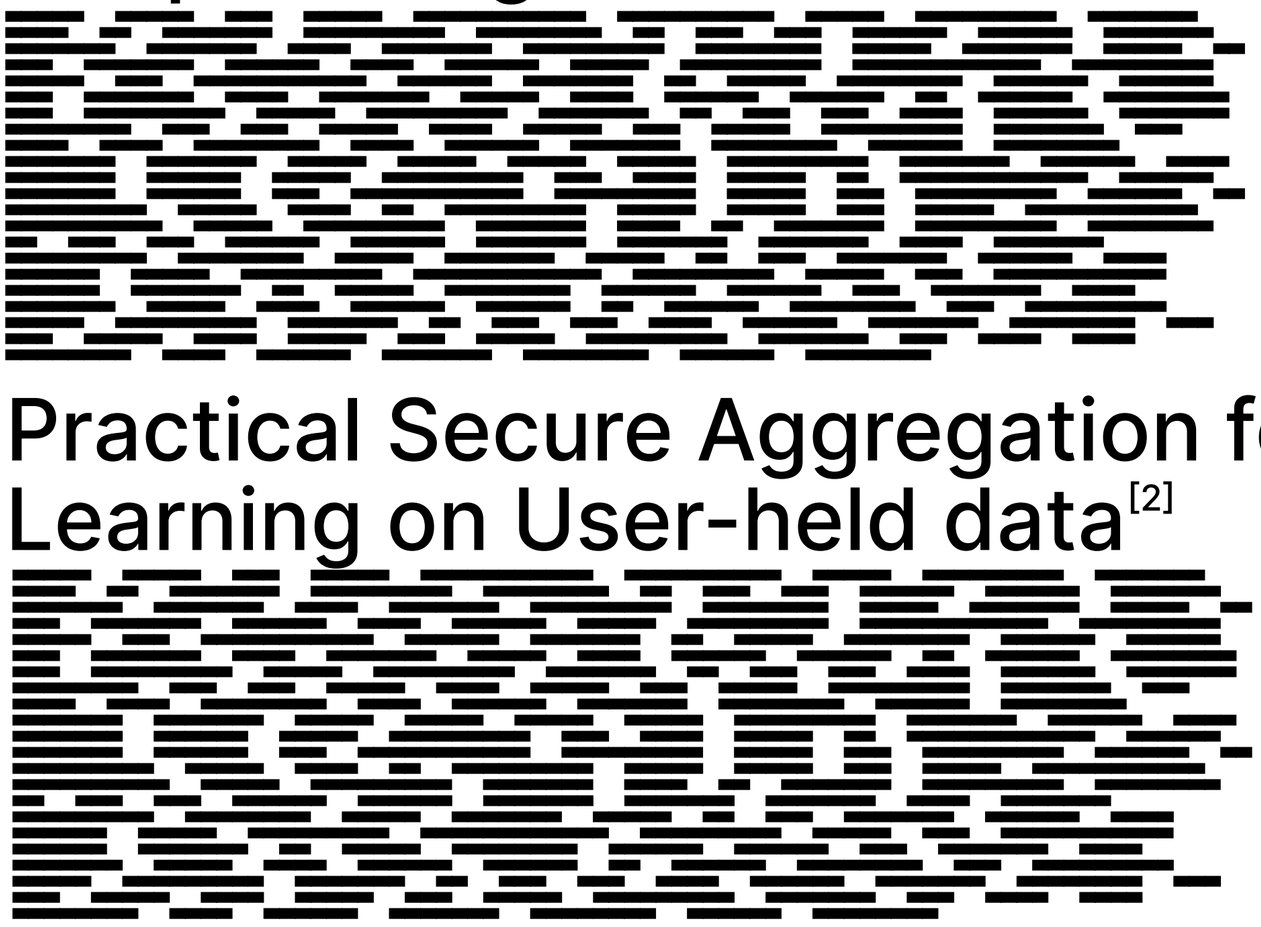
Select Activation Function

Upload and Train

What is Federated Learning?

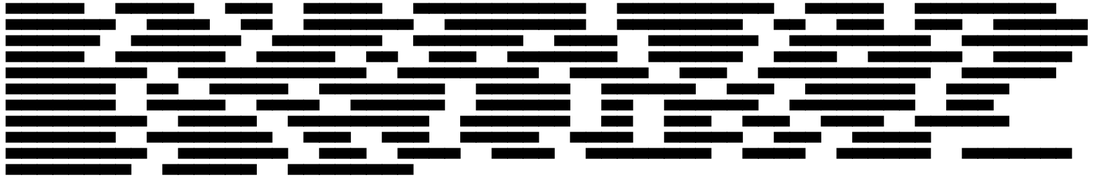


Deep Leakage from Gradients[1]



Practical Secure Aggregation for Federated Learning on User-held data[2]

Mean Squared Error (MSE)



Code Block PYTHON

```python
def mse (A,B) -> float:
    sum = 0
    for i in range(32):
         for j in range(32):
             sum += (A[i][j] - B[i][j])**2
    return sum/(32*32)
```

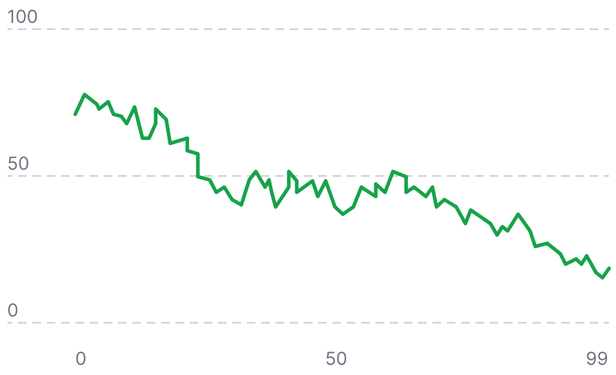
[1] Ligeng Zhu, Zhijian Liu, and Song Han. “Deep Leakage from Gradients”. In: Advances in Neural Information Processing Systems. 2019. url: https://arxiv.org/pdf/1906.08935.

[2] K. A. Bonawitz et al. “Practical Secure Aggregation for Federated Learning on User-Held Data”. In: NIPS Workshop on Private Multi-Party Machine Learning. 2016. url: https://arxiv.org/abs/1611.04482.

Mean Squared Error for CIFAR 100 (#0 - #99)

Mean Squared Error (the lower the better)

MSE



Peak-signal-to-noise ratio for CIFAR 100 (#0 - #99)