

Expansion of IoT and TinyML: Requirements, Accelerators, and Challenges

Internet-of-Things (IoT) in Smart Cities and Industry 4.0

Neural network accelerators

Aspects for long-term sustainability:

Energy and resource efficiency

Quality preservation

Application versatility

Platform compatibility

On-device training

Model versatility

FC (2), Linear
FC (E = 64), ReLu
FC (D = 196), ReLu
Flatten
2 x 2 MaxPool, stride 2
BatchNormalization
3 x 3 Conv (C = 60), ReLu
2 x 2 MaxPool, stride 2
BatchNormalization
3 x 3 Conv (B = 55), ReLu
2 x 2 MaxPool, stride 2
BatchNormalization
3 x 3 Conv (A = 50), ReLu
Input tensor (F x T x S)