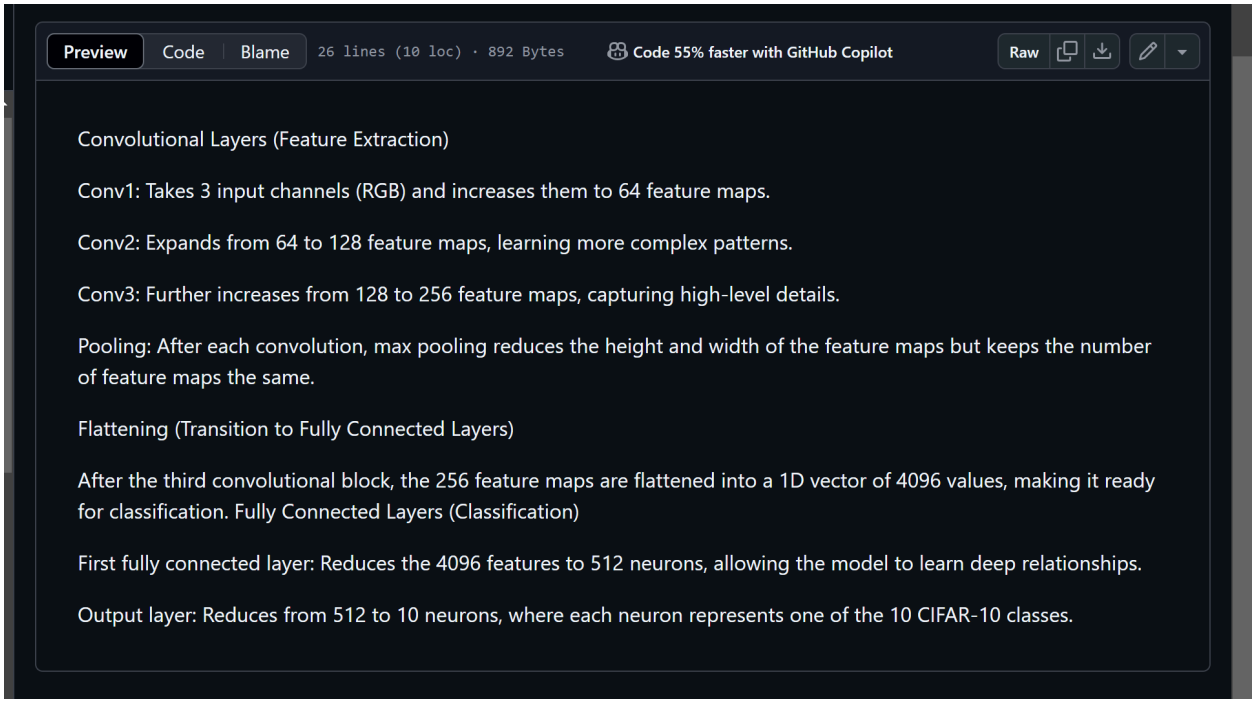
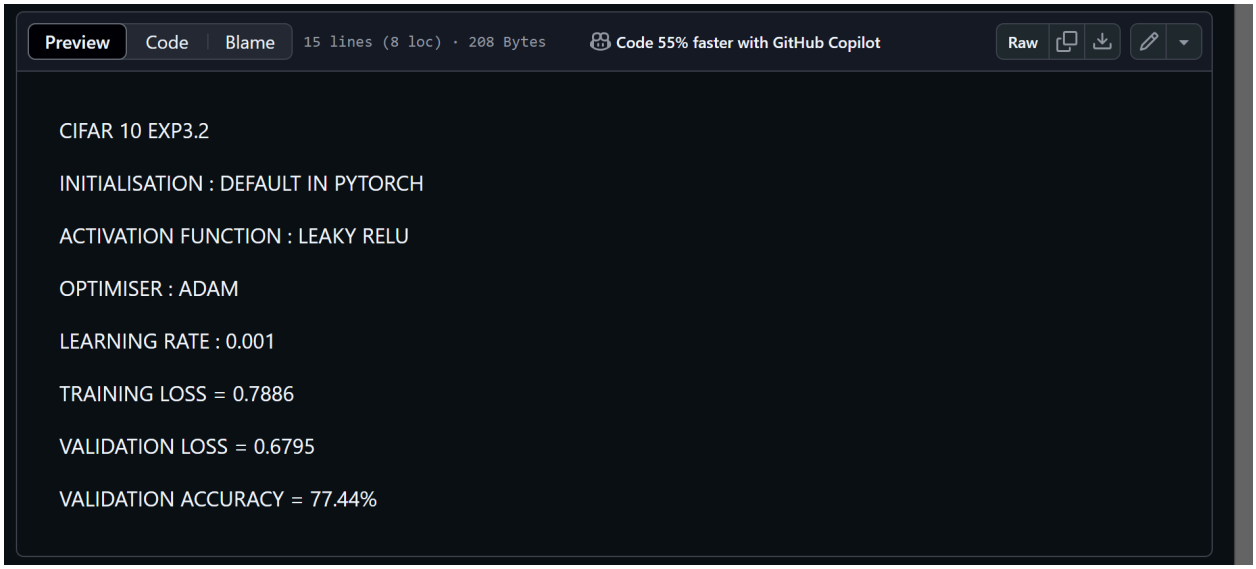
CIFAR 10 IMAGE CLASSIFICATION TASK

Architecture used along with batch normalisation and dropout

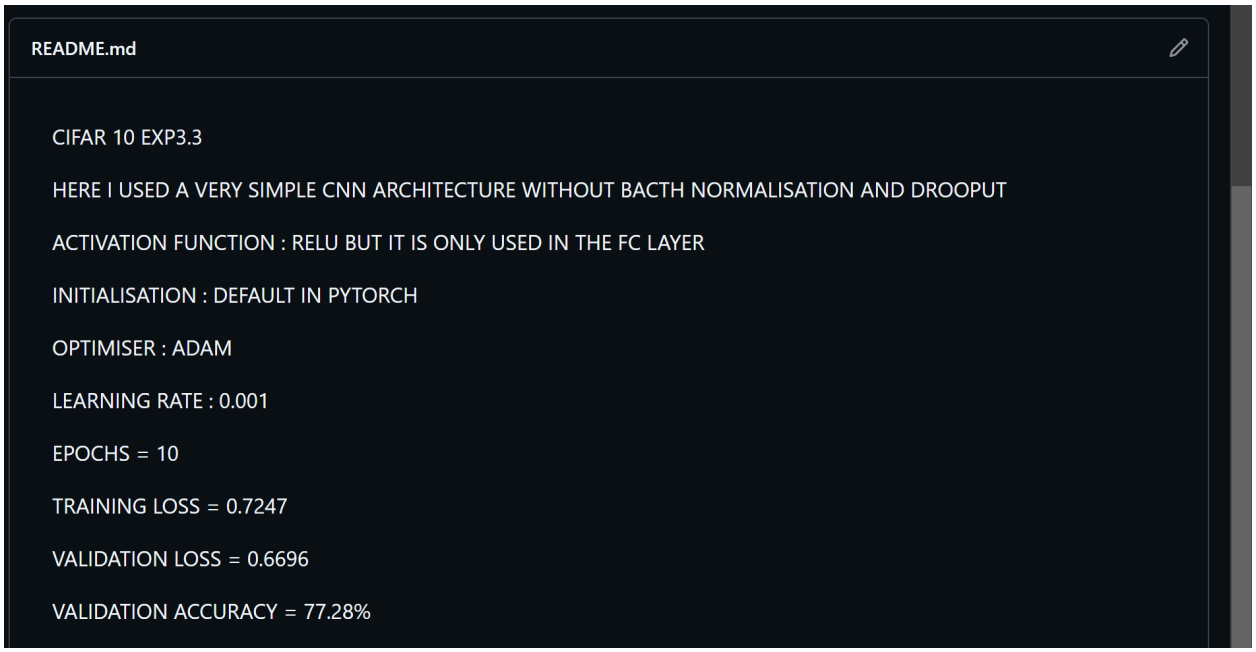


EXP 3.1

EXP3.2


Preview
Code
Blame
15 lines (8 loc) · 208 Bytes
Code 55% faster with GitHub Copilot
Raw
CIFAR 10 EXP3.2
INITIALISATION : DEFAULT IN PYTORCH
ACTIVATION FUNCTION : LEAKY RELU
OPTIMISER : ADAM
LEARNING RATE : 0.001
TRAINING LOSS = 0.7886
VALIDATION LOSS = 0.6795
VALIDATION ACCURACY = 77.44%

EXP 3.3


README.md
CIFAR 10 EXP3.3
HERE I USED A VERY SIMPLE CNN ARCHITECTURE WITHOUT BACTH NORMALISATION AND DROOPUT
ACTIVATION FUNCTION : RELU BUT IT IS ONLY USED IN THE FC LAYER
INITIALISATION : DEFAULT IN PYTORCH
OPTIMISER : ADAM
LEARNING RATE : 0.001
EPOCHS = 10
TRAINING LOSS = 0.7247
VALIDATION LOSS = 0.6696
VALIDATION ACCURACY = 77.28%

EXP 3.4 (BEST MODEL)

README.md

CIFAR 10 EXP3.4

INITIALISATION : DEFAULT IN PYTORCH

ACTIVATION FUNCTION : LEAKY RELU

OPTIMISER = ADAM

LEARNING RATE = 0.001

EPOCHS = 20

TRAINING LOSS = 0.3938

VALIDATION LOSS = 0.4503

VALIDATION ACCURACY = 85.61%

BEST MODEL YET

EXP 3.5

README.md

CIFAR 10 EXP3.5

PRETRAINED ON RESNET 18

USED PRETRAINED WEIGHTS

OPTIMISER : ADAM

LEARNING RATE = 0.001

EPOCHS = 30

TRAINING LOSS = 0.2426

ACCURACY = 91.56%