Deep Restore

Architecture Comparision Server

September 6, 2018

Description

- Densenet, Early, Late and Bottleneck use patches of size 128x128 + mirror padding (padding size depending on architecture)
- All testes architectures use the information of previous, current and next frame
- 1000 iterations
- augmented training set
- last activation function: sigmoid
- train and test data visualized for early stopping
- accuracy and loss for each architecture and early stopping
- dropout with 0.85 keep probability
- L2 regularization of weights (weight decay)

Early Combine

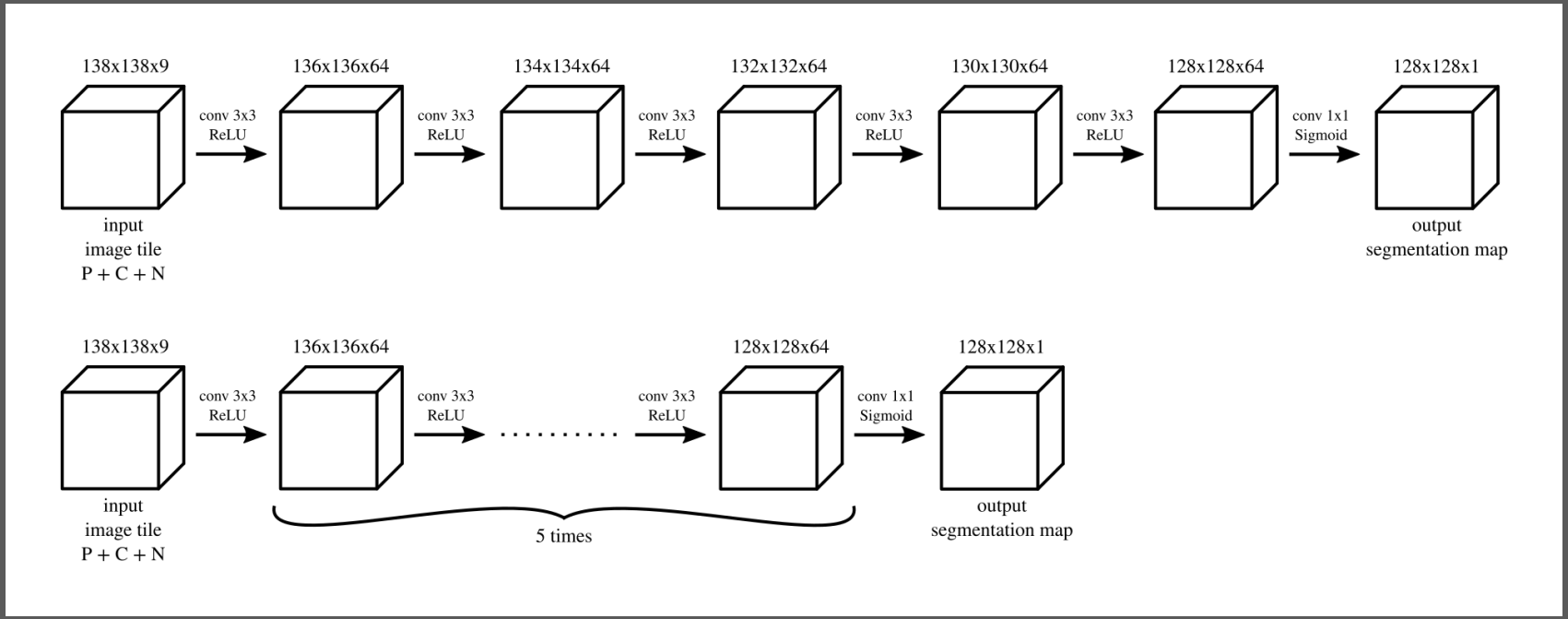


Figure: Early

Late Combine

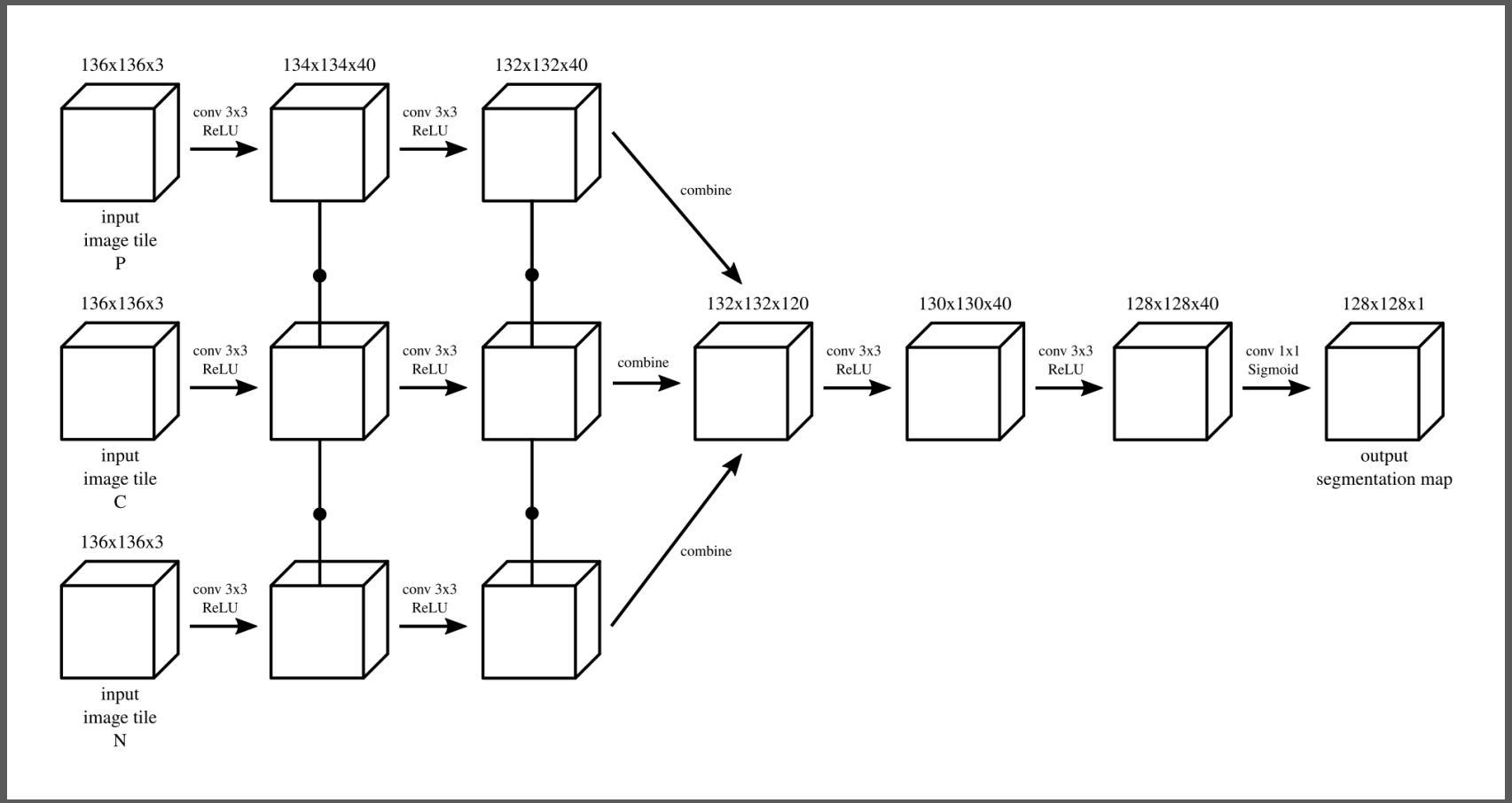


Figure: Late

Densenet

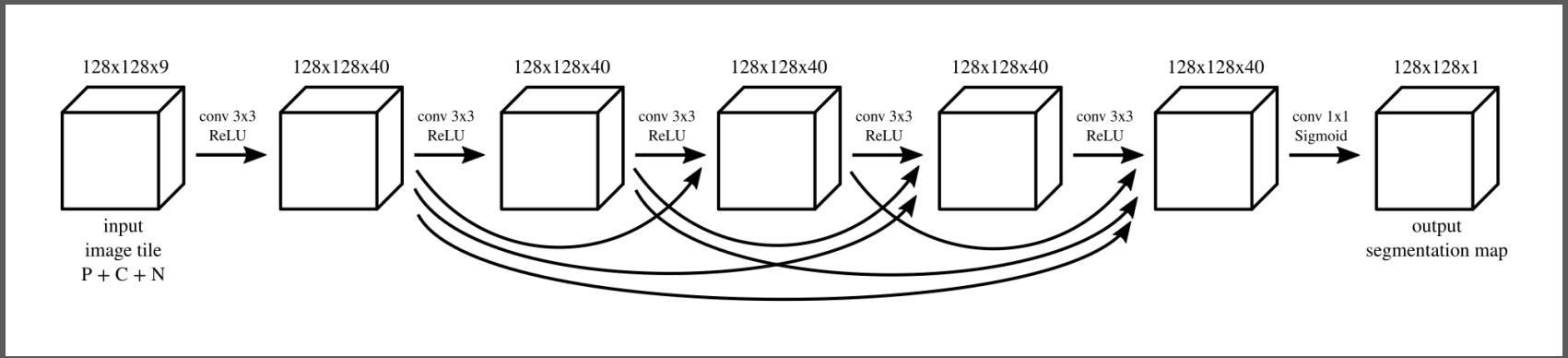


Figure: Densenet

Bottleneck

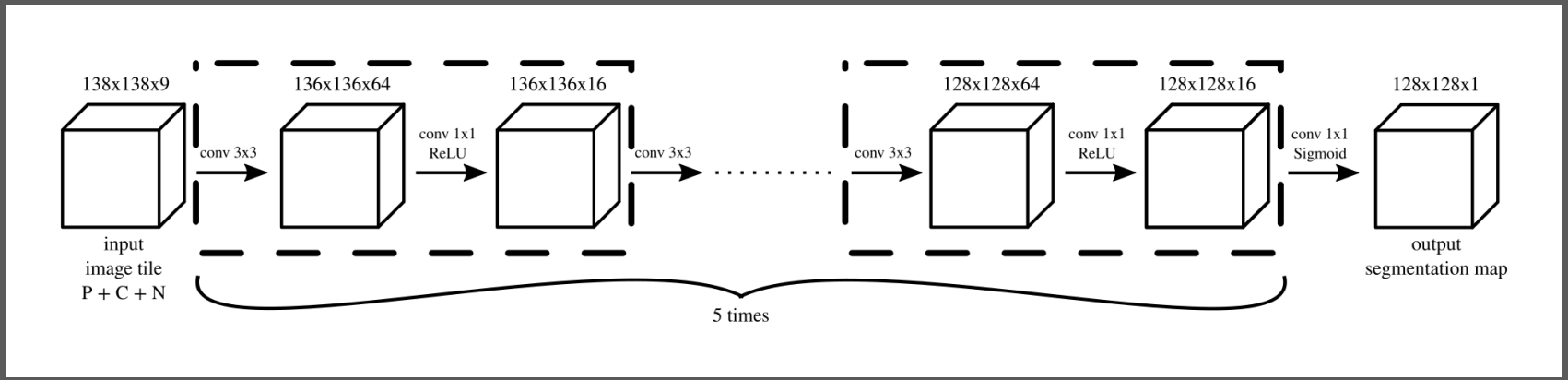
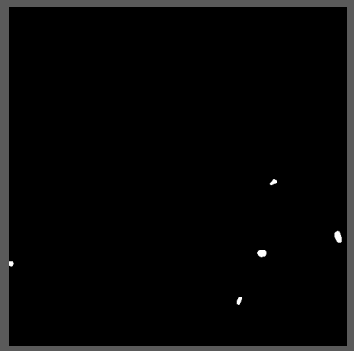


Figure: Bottleneck

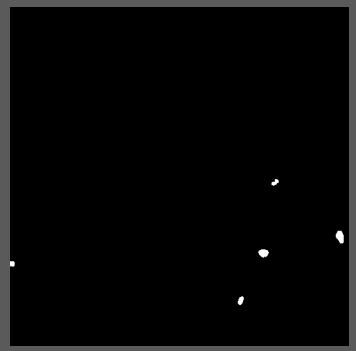
Train - Ex1

(a) Input

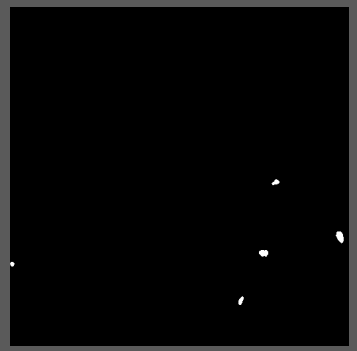
(b) GT



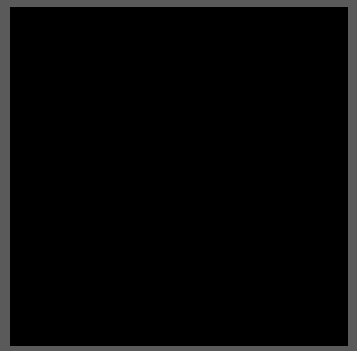
(a) early



(b) late



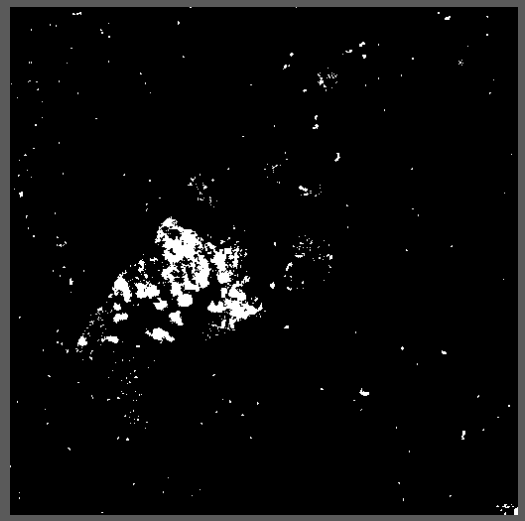
(c) densenet



(d) bottleneck

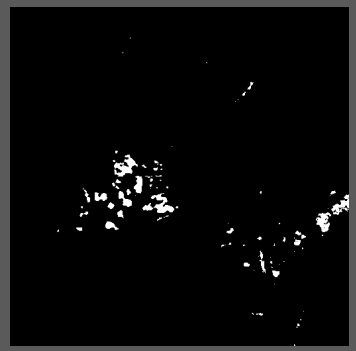
Train - Ex2

(a) Input

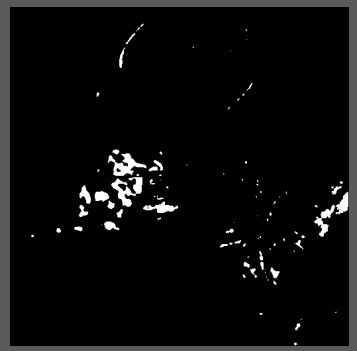


(b) GT

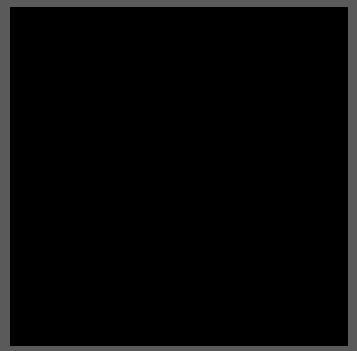
(a) early



(b) late



(c) densenet



(d) bottleneck

Train - Ex3

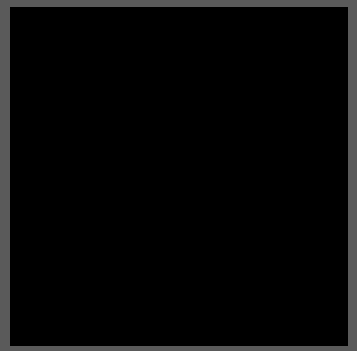
(a) Input

(b) GT

(a) early

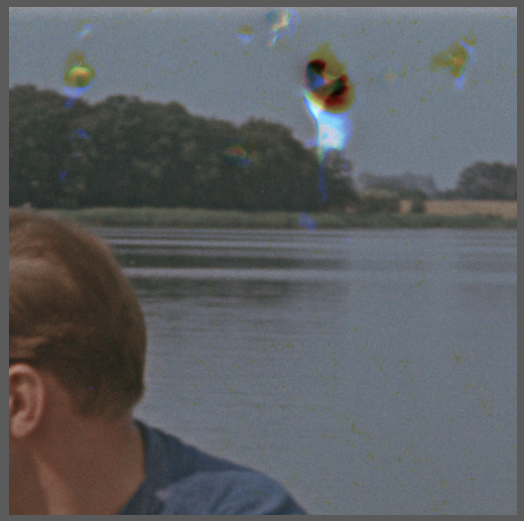
(b) late

(c) densenet

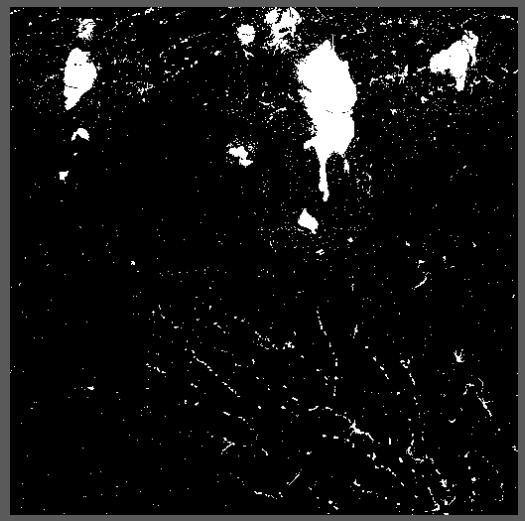


(d) bottleneck

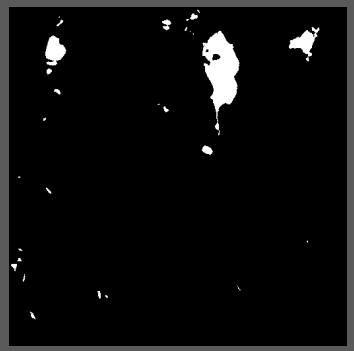
Train - Ex4



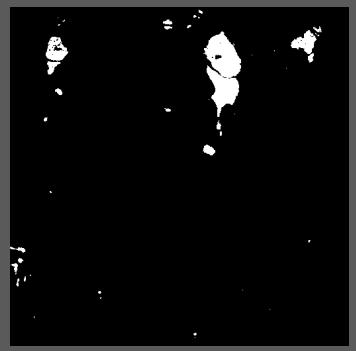
(a) Input



(b) GT

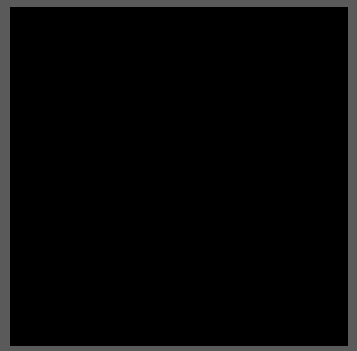


(a) early



(b) late

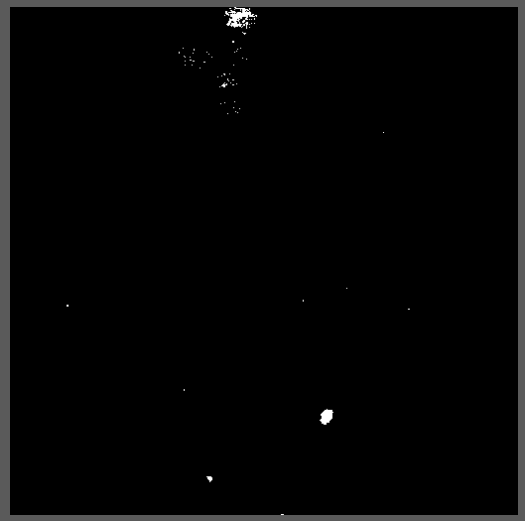
(c) densenet



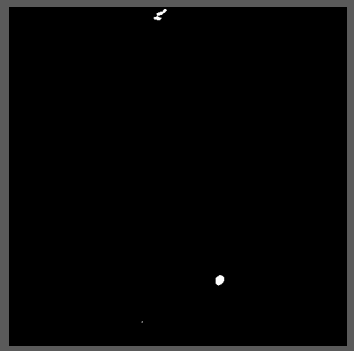
(d) bottleneck

Train - Ex5

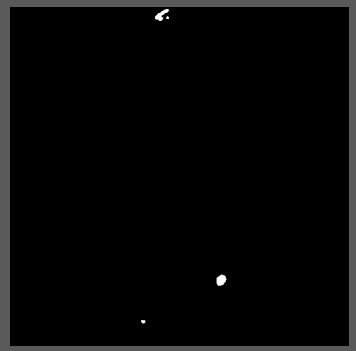
(a) Input



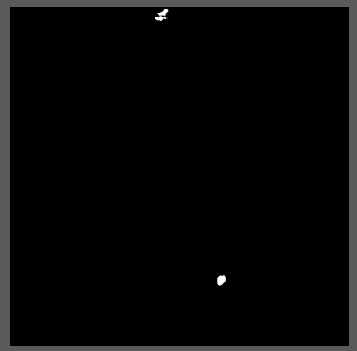
(b) GT



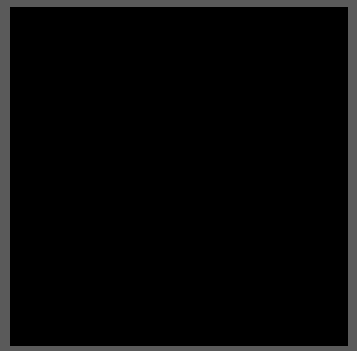
(a) early



(b) late



(c) densenet



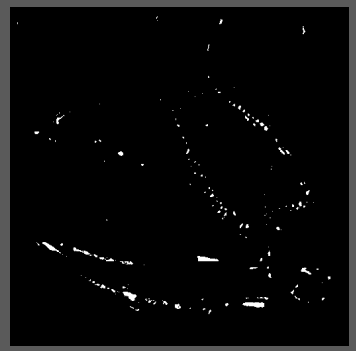
(d) bottleneck

Train - Ex6

(a) Input

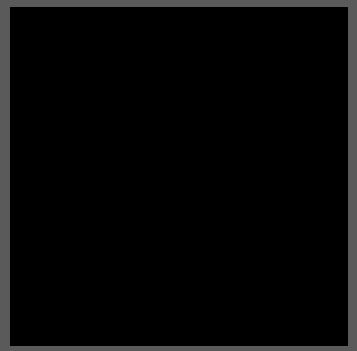
(b) GT

(a) early



(b) late

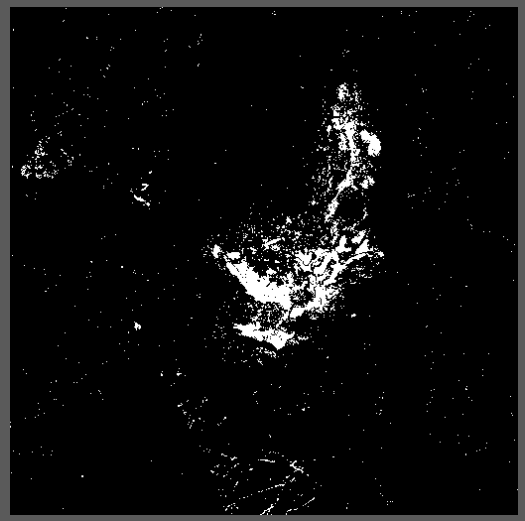
(c) densenet



(d) bottleneck

Train - Ex7

(a) Input

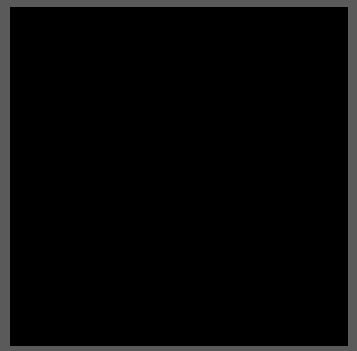


(b) GT

(a) early

(b) late

(c) densenet

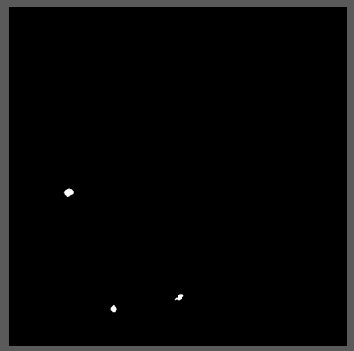


(d) bottleneck

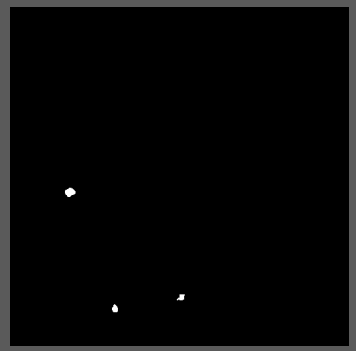
Train - Ex8

(a) Input

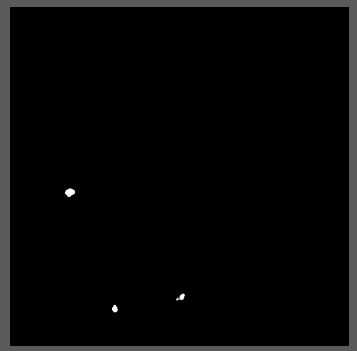
(b) GT



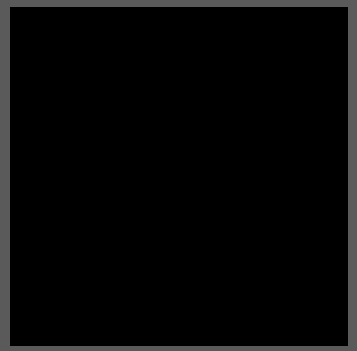
(a) early



(b) late



(c) densenet



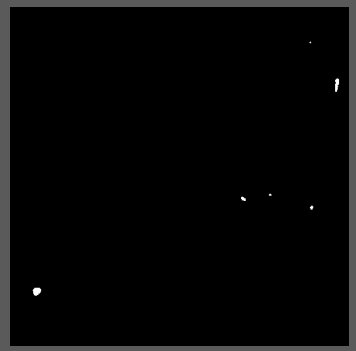
(d) bottleneck

Train - Ex9

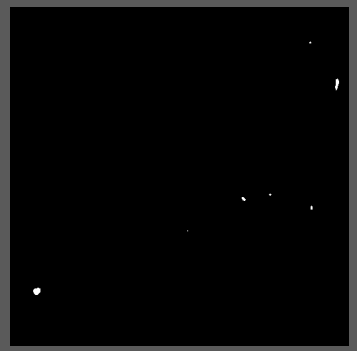
(a) Input

(b) GT

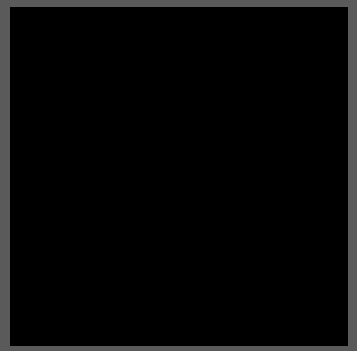
(a) early



(b) late

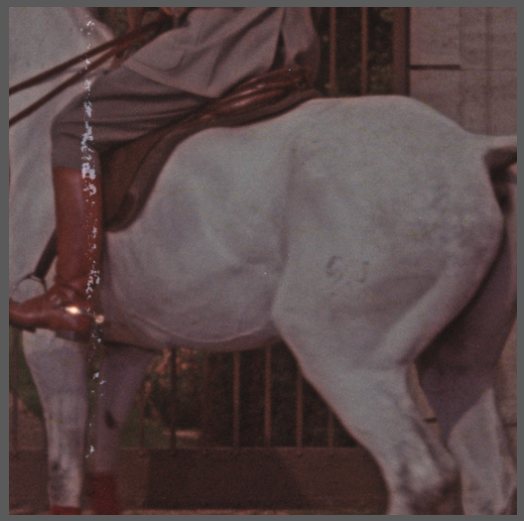


(c) densenet



(d) bottleneck

Train - Ex10



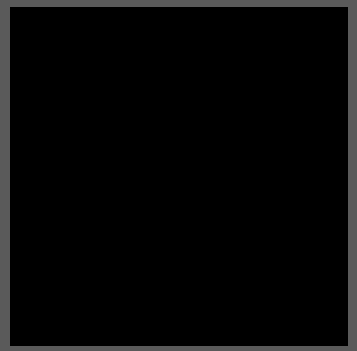
(a) Input

(b) GT

(a) early

(b) late

(c) densenet

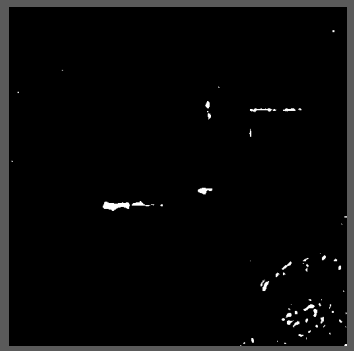


(d) bottleneck

Train - Ex11

(a) Input

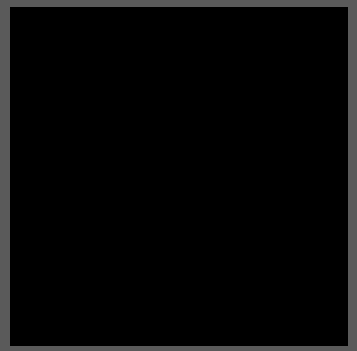
(b) GT



(a) early

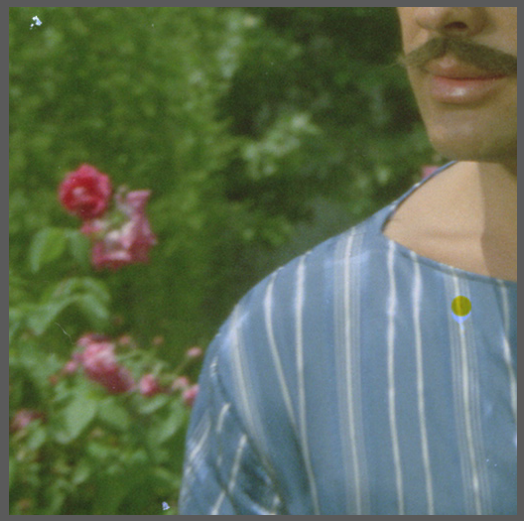
(b) late

(c) densenet



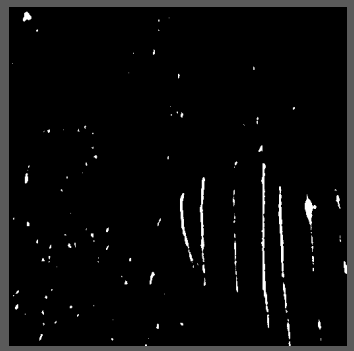
(d) bottleneck

Train - Ex12



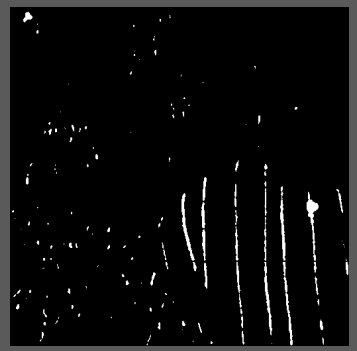
(a) Input

(b) GT

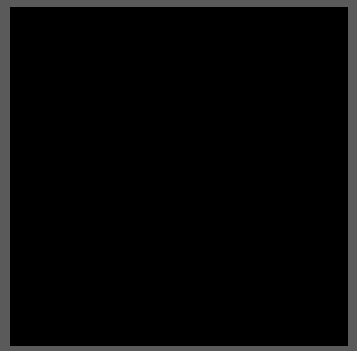


(a) early

(b) late

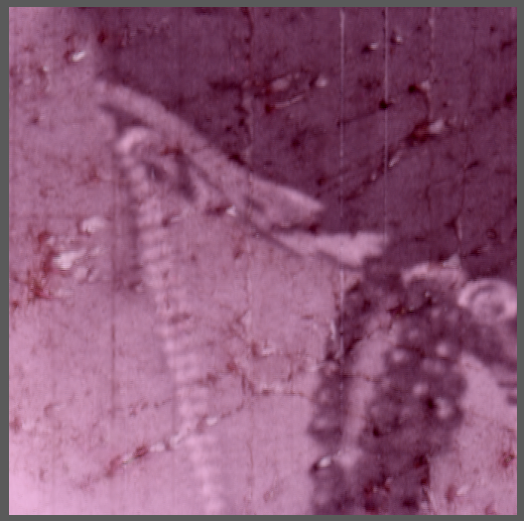


(c) densenet

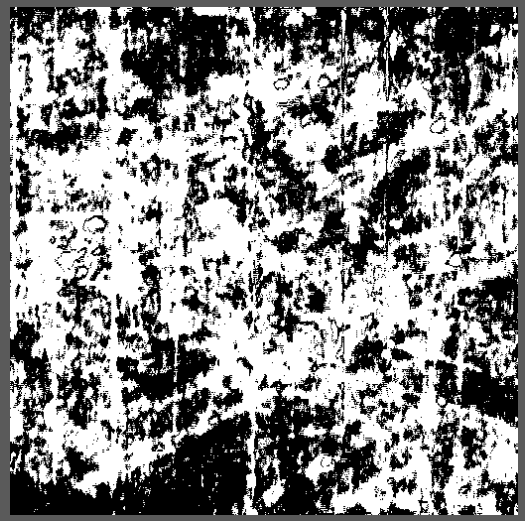


(d) bottleneck

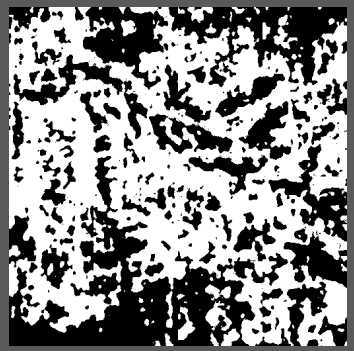
Train - Ex13



(a) Input

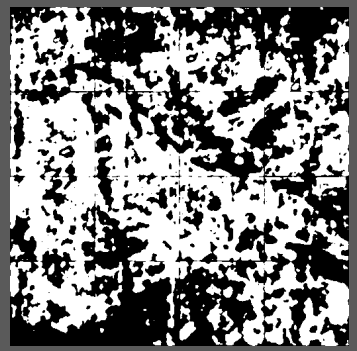


(b) GT

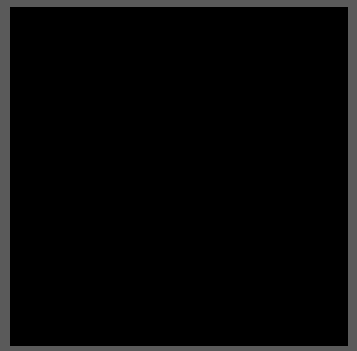


(a) early

(b) late



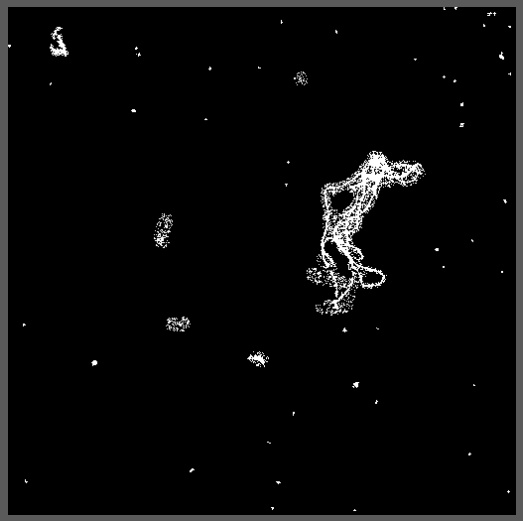
(c) densenet



(d) bottleneck

Train - Ex14

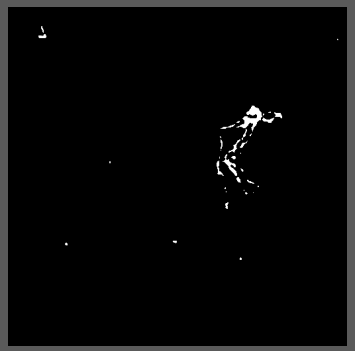
(a) Input



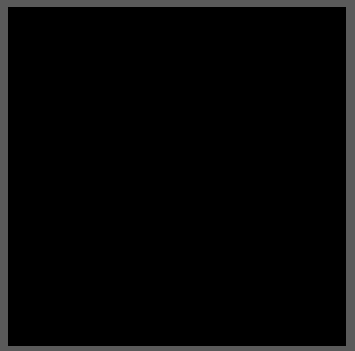
(b) GT

(a) early

(b) late



(c) densenet



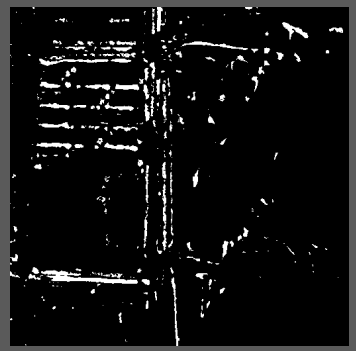
(d) bottleneck

Train - Ex15

(a) Input

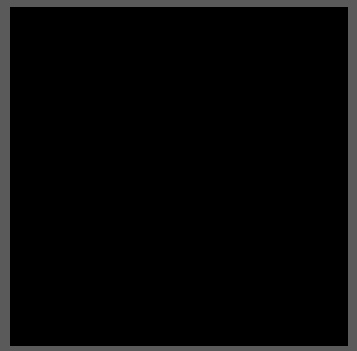
(b) GT

(a) early



(b) late

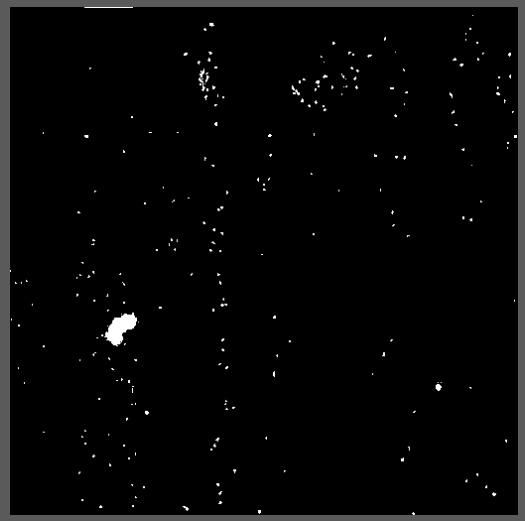
(c) densenet



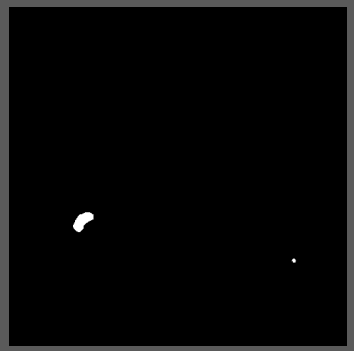
(d) bottleneck

Ex1

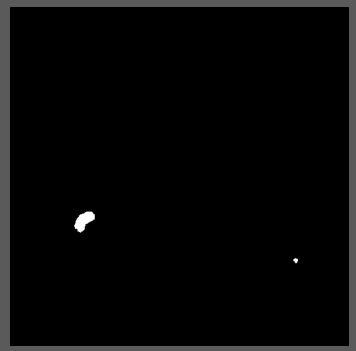
(a) Input



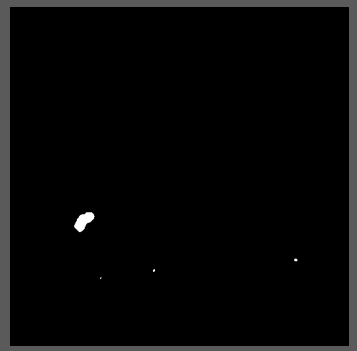
(b) GT



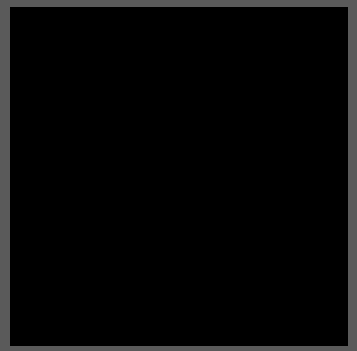
(a) early



(b) late

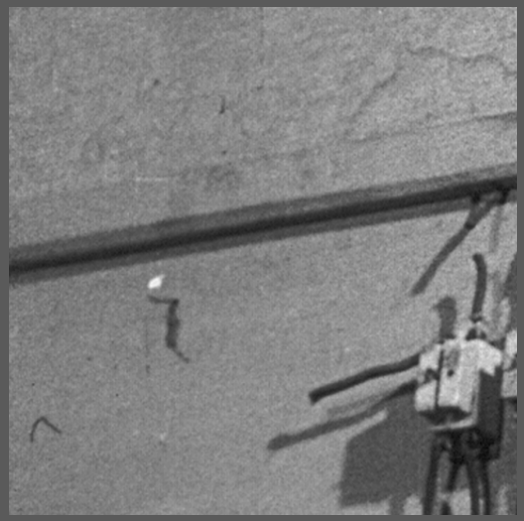


(c) densenet



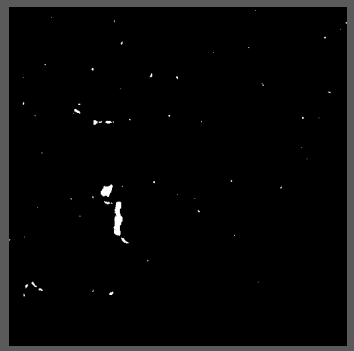
(d) bottleneck

Ex2



(a) Input

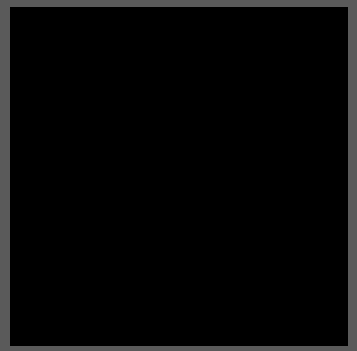
(b) GT



(a) early

(b) late

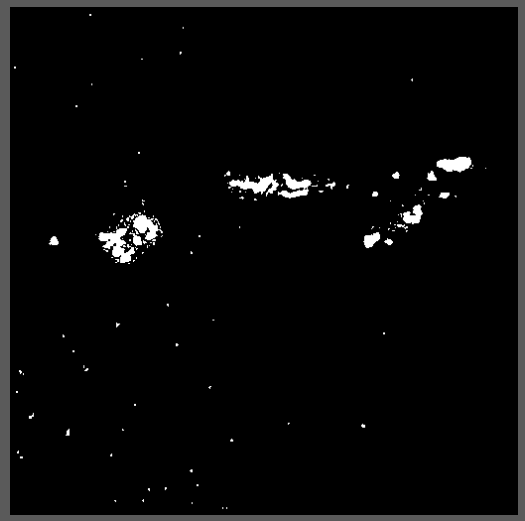
(c) densenet



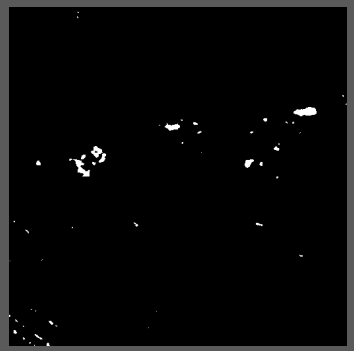
(d) bottleneck

Ex3

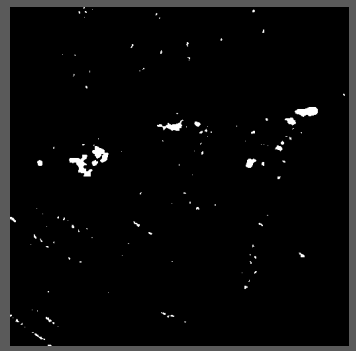
(a) Input



(b) GT

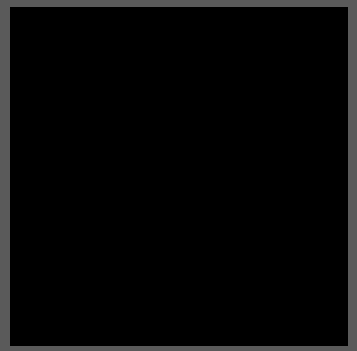


(a) early



(b) late

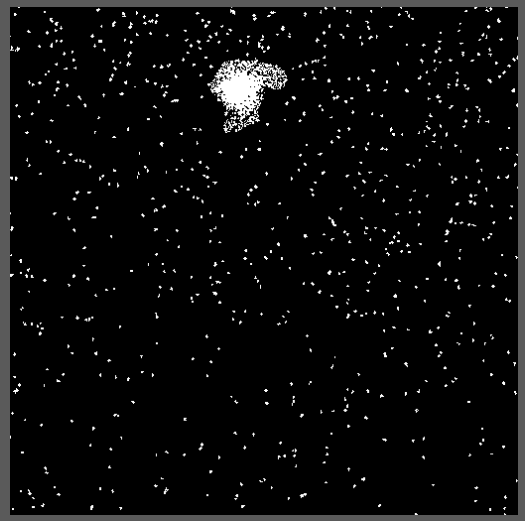
(c) densenet



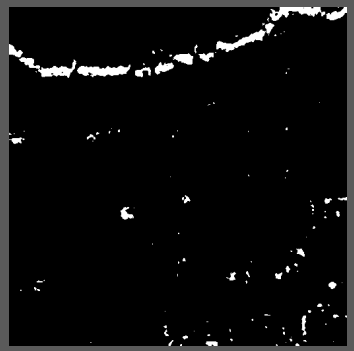
(d) bottleneck

Ex4

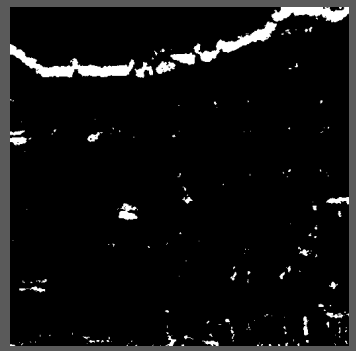
(a) Input



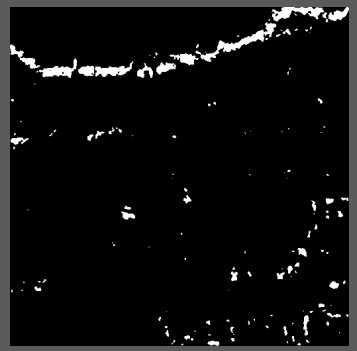
(b) GT



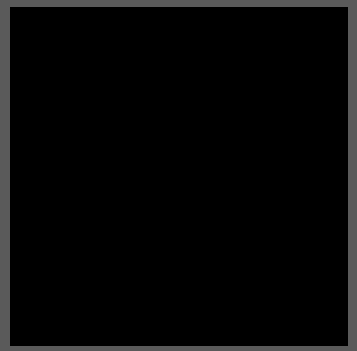
(a) early



(b) late

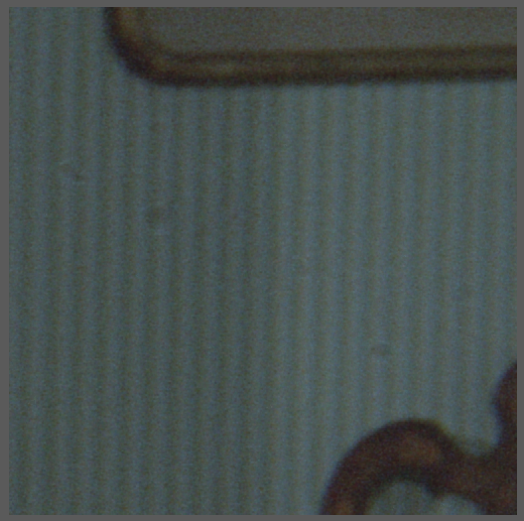


(c) densenet

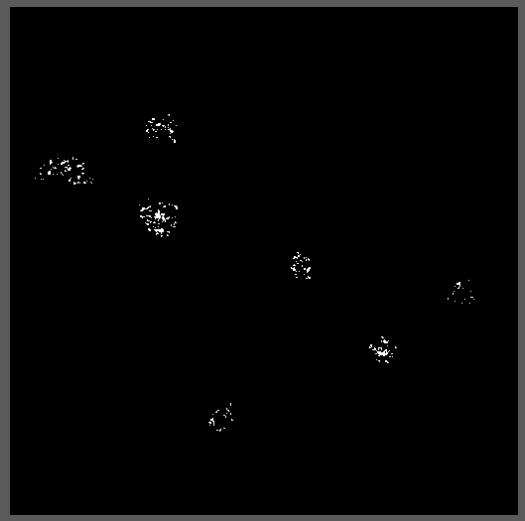


(d) bottleneck

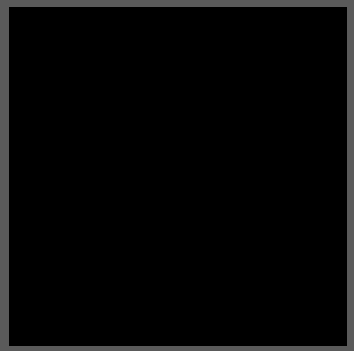
Ex5



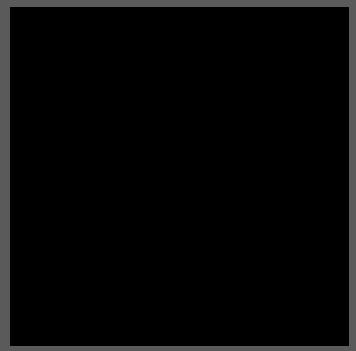
(a) Input



(b) GT

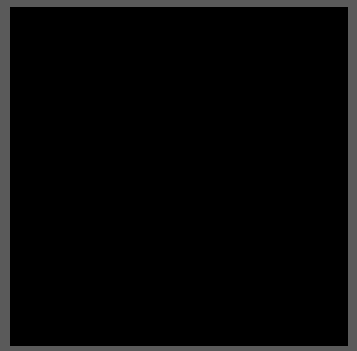


(a) early



(b) late

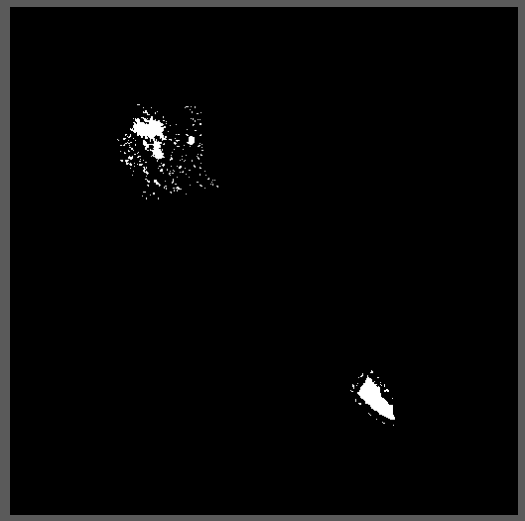
(c) densenet



(d) bottleneck

Ex6

(a) Input

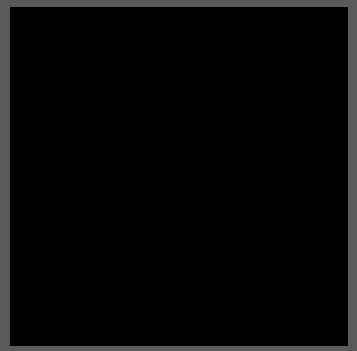


(b) GT

(a) early

(b) late

(c) densenet



(d) bottleneck

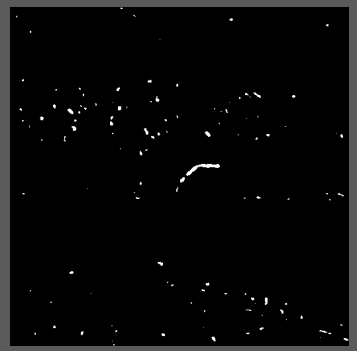
Ex7

(a) Input

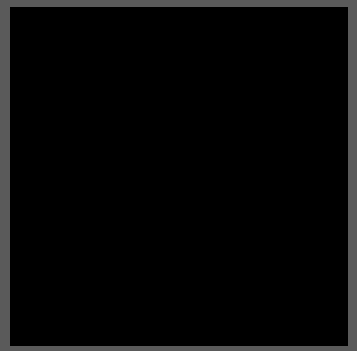
(b) GT

(a) early

(b) late



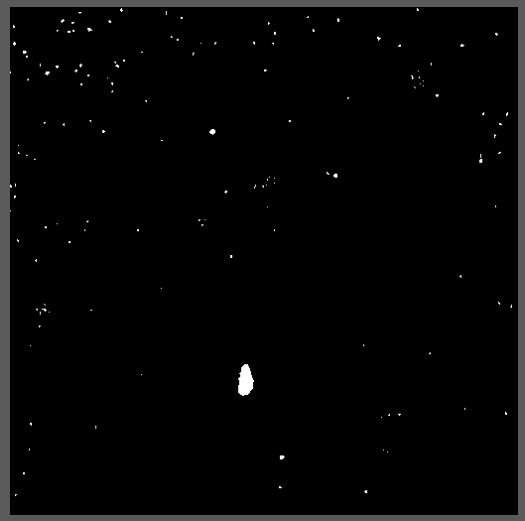
(c) densenet



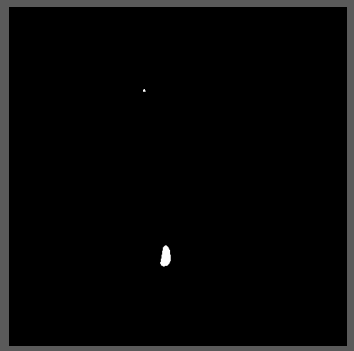
(d) bottleneck

Ex8

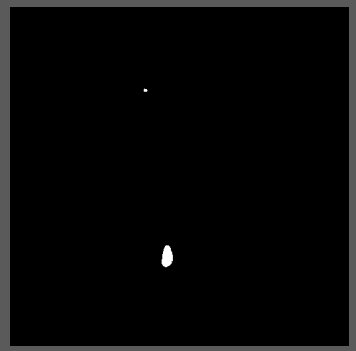
(a) Input



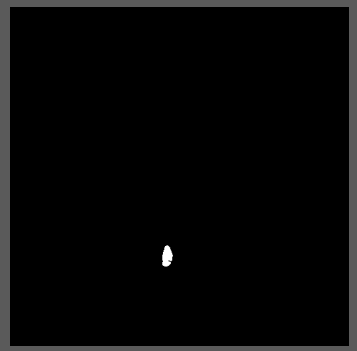
(b) GT



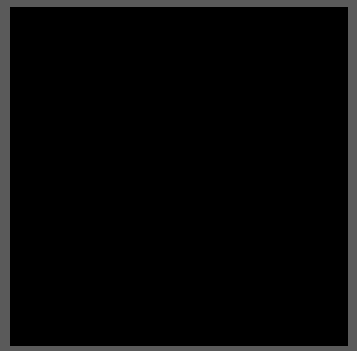
(a) early



(b) late



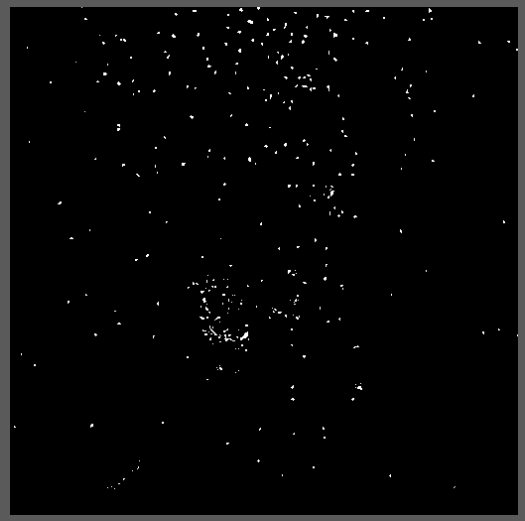
(c) densenet



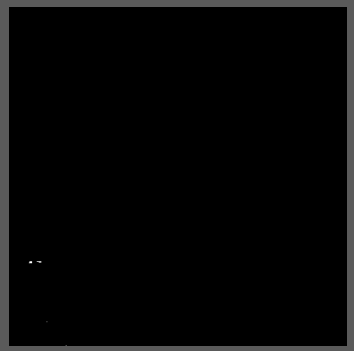
(d) bottleneck

Ex9

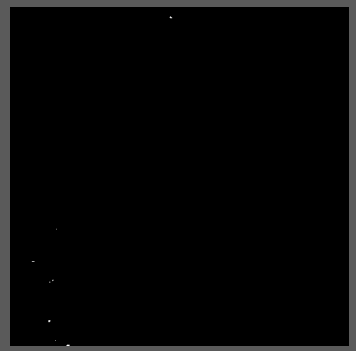
(a) Input



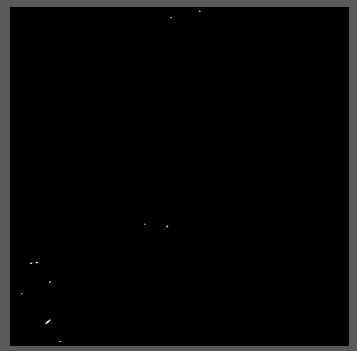
(b) GT



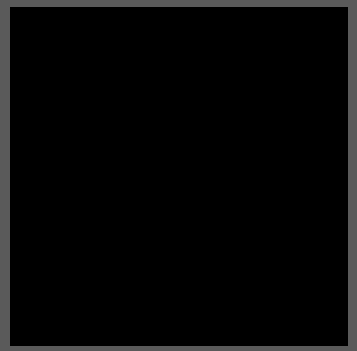
(a) early



(b) late



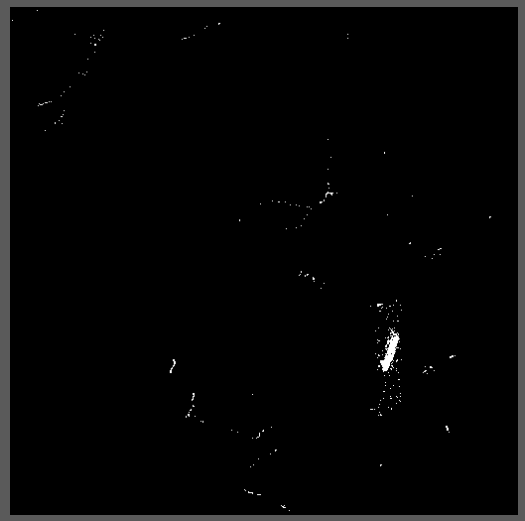
(c) densenet



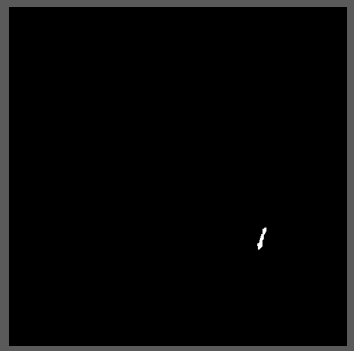
(d) bottleneck

Ex10

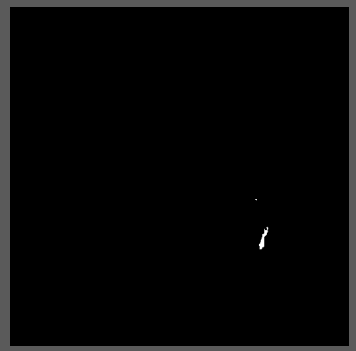
(a) Input



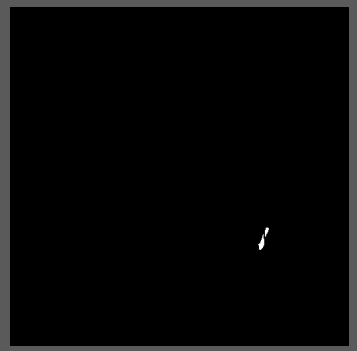
(b) GT



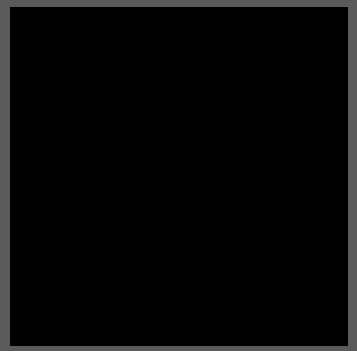
(a) early



(b) late



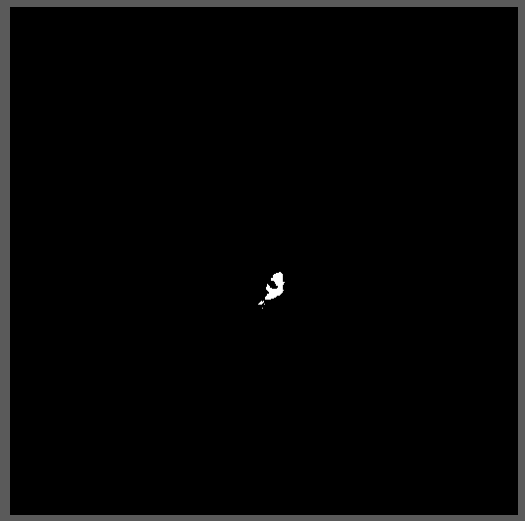
(c) densenet



(d) bottleneck

Ex11

(a) Input

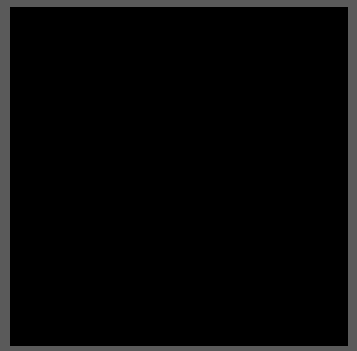


(b) GT

(a) early

(b) late

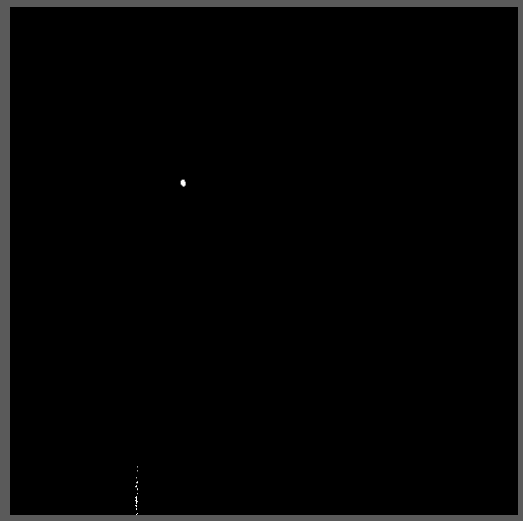
(c) densenet



(d) bottleneck

Ex12

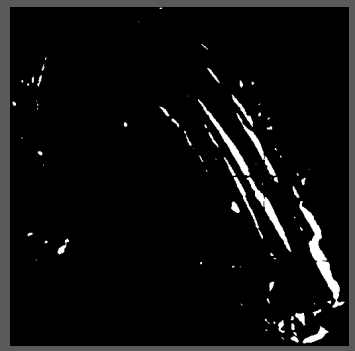
(a) Input



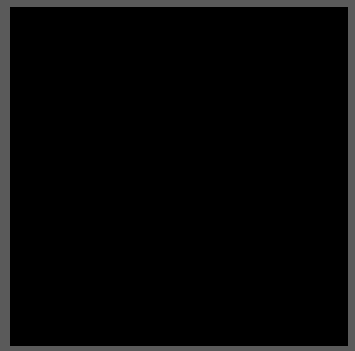
(b) GT

(a) early

(b) late



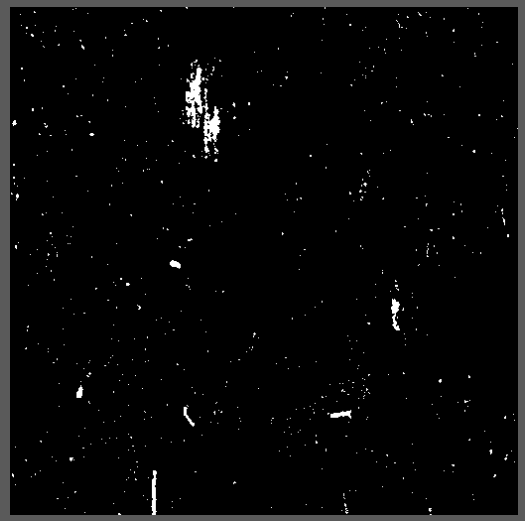
(c) densenet



(d) bottleneck

Ex13

(a) Input

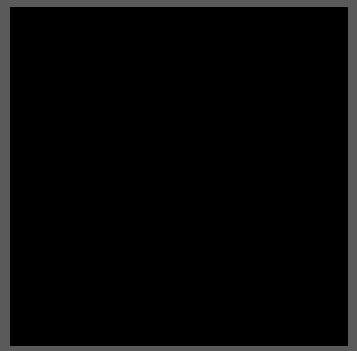


(b) GT

(a) early

(b) late

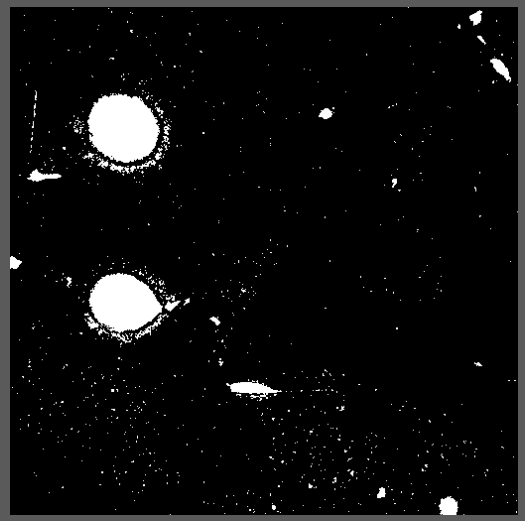
(c) densenet



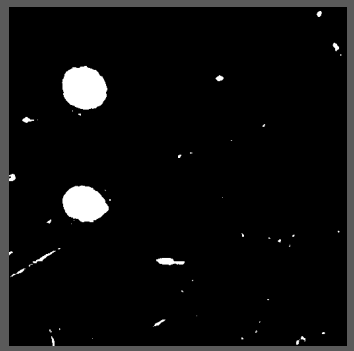
(d) bottleneck

Ex14

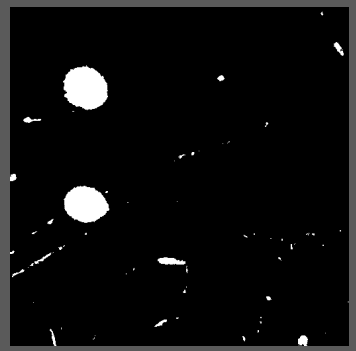
(a) Input



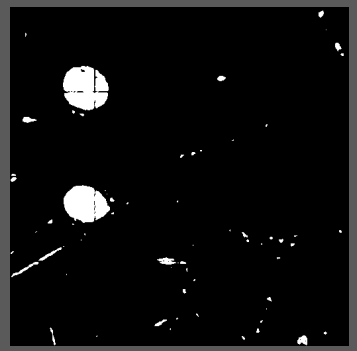
(b) GT



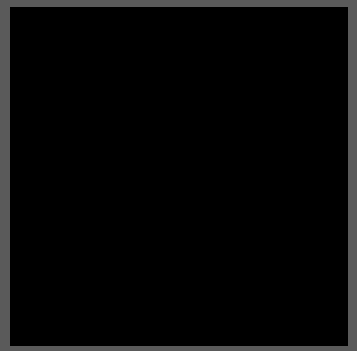
(a) early



(b) late



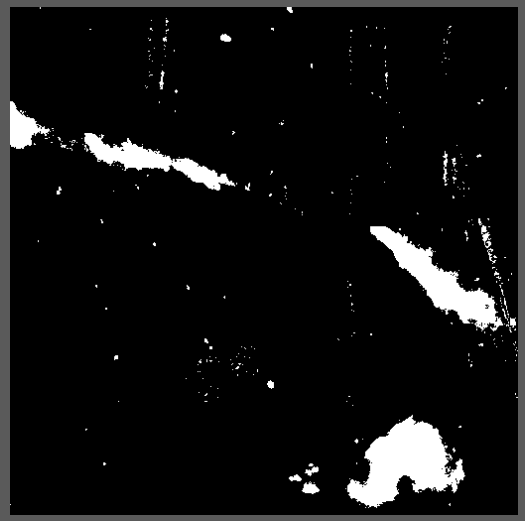
(c) densenet



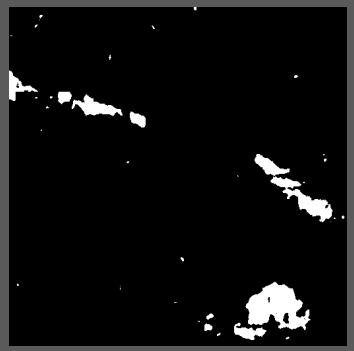
(d) bottleneck

Ex15

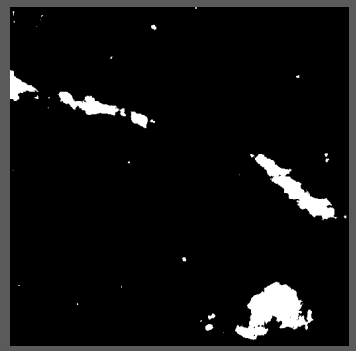
(a) Input



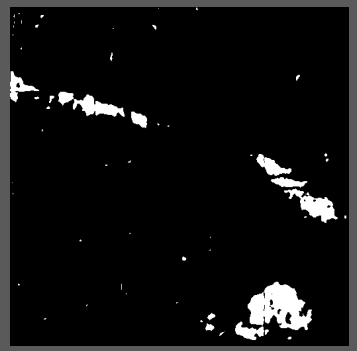
(b) GT



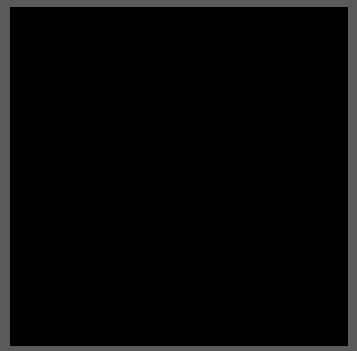
(a) early



(b) late

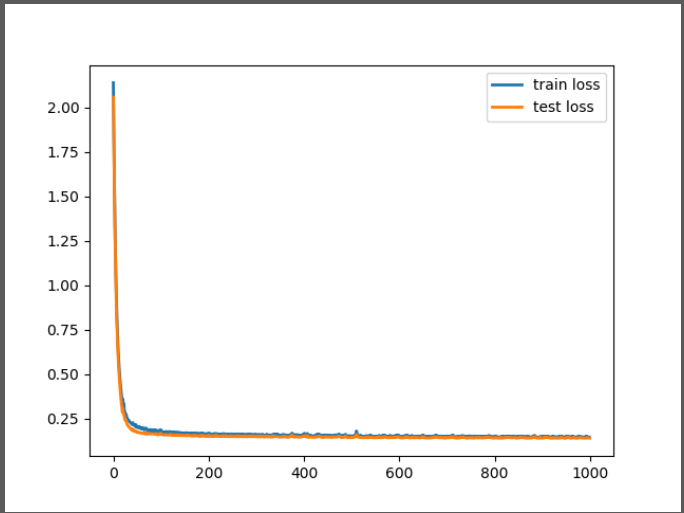


(c) densenet

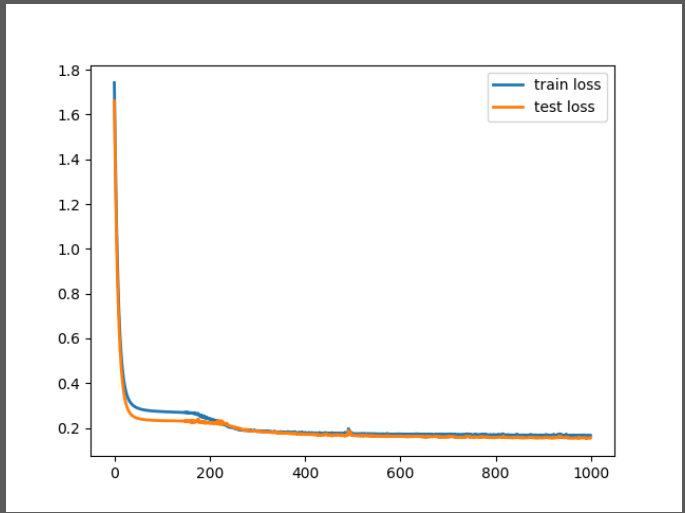


(d) bottleneck

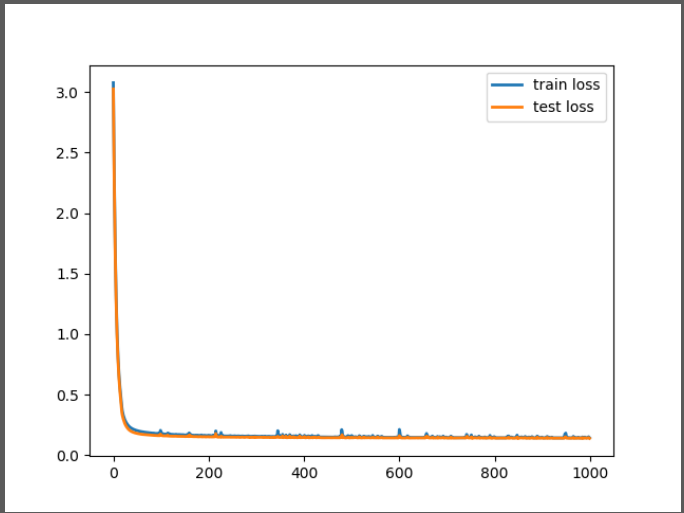
Trainingsloss



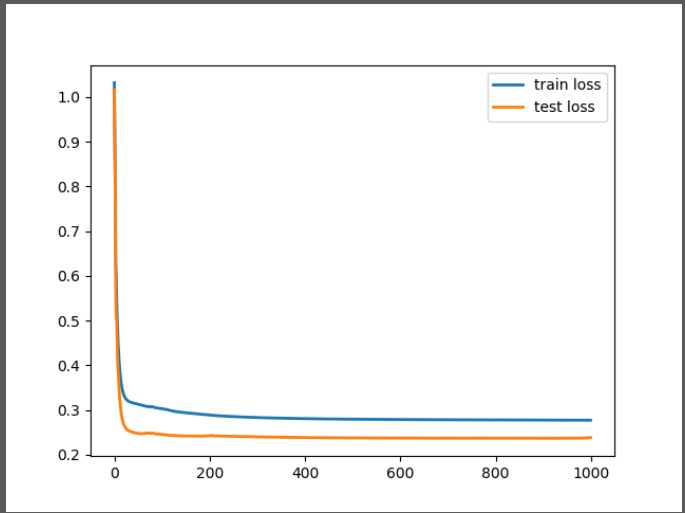
(a) early



(b) late

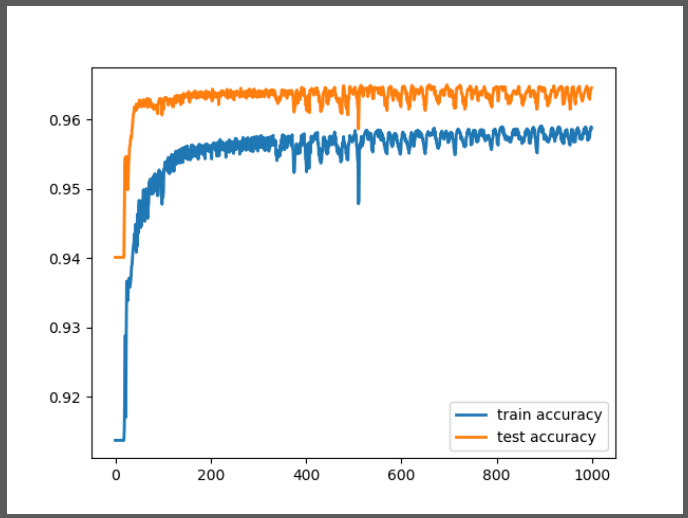


(c) densenet

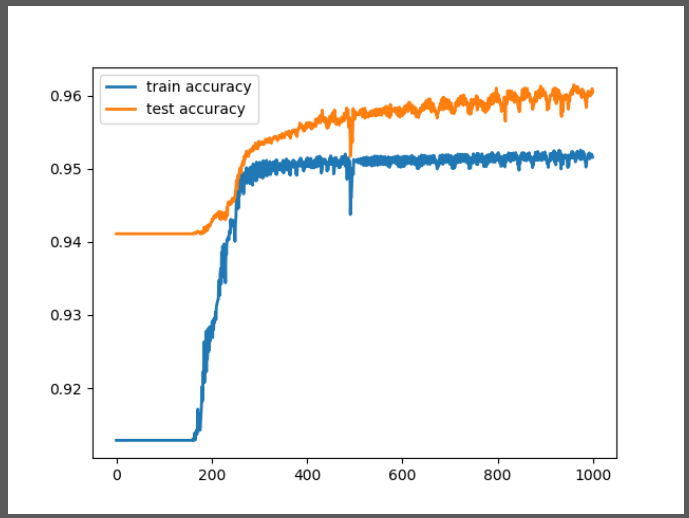


(d) bottleneck

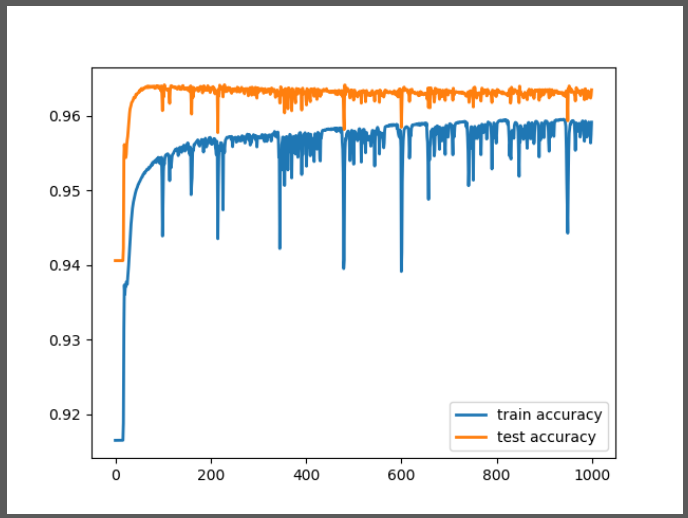
Trainingsaccuracy



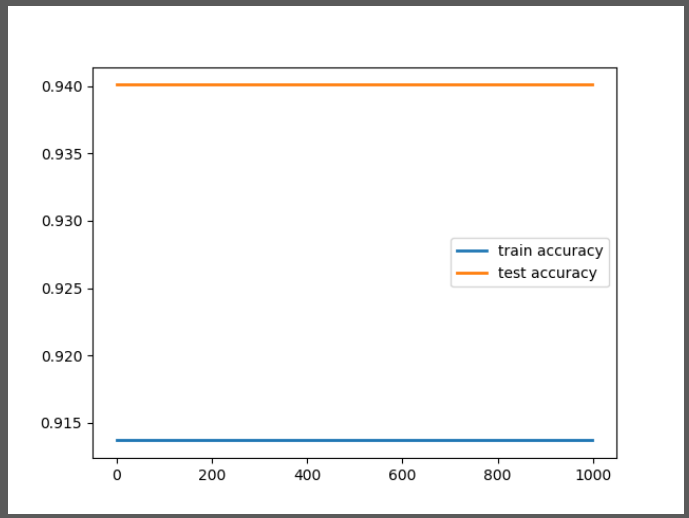
(a) early



(b) late



(c) densenet



(d) bottleneck