

[28, 28]

784

MLP Classifier

; NN

- hidden layer sizes (600, 200,)

$\Delta$  = apple, strawberry, banana, onion, sun

$\star$  apple, strawberry, banana, onion,

$\bigcirc$  apple, strawberry, banana

$\star$  N = ~~2000~~ 1000

$\Delta$  - tr 0.99  
- val 0.27  
- test 0.0

$\star$  - tr 0.97  
- val 0.91  
- test 0.15

$\bigcirc$  - tr 0.99  
- val 0.70  
- test 0.0

N = 2000

$\Delta$  - tr 0.99  
- val 0.26  
- test 0.0

$\star$  - tr 0.98  
- val 0.90  
- test 0.15

$\bigcirc$  - tr 0.9952  
- val 0.7107  
- test 0.0

N = 4000

$\Delta$  - tr 0.99  
- val 0.267  
- test 0.0

$\star$  - tr 0.97  
- val 0.92  
- test 0.15

$\bigcirc$  - tr 0.99  
- val 0.71  
- train 0.0

(800,)

N	A	<del>A</del>	O	
1000	0.99 0.26 0.0	0.96 0.835 0.137	0.96 0.68 0.0	- train - val - test
2000	0.958 0.270 0.0	0.99 0.91 0.152	0.996 0.70 0.0	↓
4000	0.9931 0.271 0.0	0.97 0.90 0.151	0.99 0.725 0.0	

(400, 200, 150,)

N	$\Delta$	$\Phi$	$\odot$	
1000:	0.99	0.99	0.967	-train
	0.26	0.889	0.673	-valve
	0.0	0.145	0.0	-test

2000:	$\Delta$	$\Phi$	$\odot$
	0.99	0.99	0.97
	0.27	0.92	0.205
	0.0	0.15	0.0

4000	$\Delta$	$\Phi$	$\odot$
	0.95	0.96	0.904
	0.27	0.91	0.732
	0.0	0.14	0.0

consistently  
low

~~2000~~  
2000  
worst

4000  
has  
best

↑  
direct  
correlation

(600, 200, 150, 50, 20,)

N  
1000

A

0.95  
0.26  
0.0

☆

0.98  
0.883  
0.145

○

0.99 - train  
0.67 - value  
0.0 - test

2000

0.952  
~~0.27~~ 0.27  
~~0.0~~ 0.0

0.952  
0.87  
0.141

0.99  
0.68  
0.0

4000

0.99  
0.77  
0.0

0.98  
0.89  
0.15

0.98  
0.733  
0.0

