

Q1:

Self-programming result

	1	2	3	4	5	6	7
1	1.0000e-03	0.0020	0.0030	0.0040	0.0030	0.0020	1.0000e-03

Toolbox result

	1	2	3	4	5	6	7
1	1.0000e-03	0.0020	0.0030	0.0040	0.0030	0.0020	1.0000e-03

Q2:

Self-programming result

	1	2	3	4	5	6	7
1	1.0000e-04	2.0000e-04	3.0000e-04	4.0000e-04	3.0000e-04	2.0000e-04	1.0000e-04
2	2.0000e-04	4.0000e-04	6.0000e-04	8.0000e-04	6.0000e-04	4.0000e-04	2.0000e-04
3	3.0000e-04	6.0000e-04	9.0000e-04	0.0012	9.0000e-04	6.0000e-04	3.0000e-04
4	4.0000e-04	8.0000e-04	0.0012	0.0016	0.0012	8.0000e-04	4.0000e-04
5	3.0000e-04	6.0000e-04	9.0000e-04	0.0012	9.0000e-04	6.0000e-04	3.0000e-04
6	2.0000e-04	4.0000e-04	6.0000e-04	8.0000e-04	6.0000e-04	4.0000e-04	2.0000e-04
7	1.0000e-04	2.0000e-04	3.0000e-04	4.0000e-04	3.0000e-04	2.0000e-04	1.0000e-04

Toolbox result

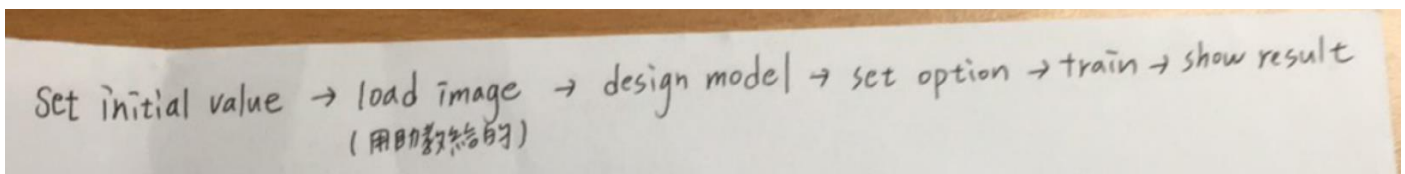
	1	2	3	4	5	6	7
1	1.0000e-04	2.0000e-04	3.0000e-04	4.0000e-04	3.0000e-04	2.0000e-04	1.0000e-04
2	2.0000e-04	4.0000e-04	6.0000e-04	8.0000e-04	6.0000e-04	4.0000e-04	2.0000e-04
3	3.0000e-04	6.0000e-04	9.0000e-04	0.0012	9.0000e-04	6.0000e-04	3.0000e-04
4	4.0000e-04	8.0000e-04	0.0012	0.0016	0.0012	8.0000e-04	4.0000e-04
5	3.0000e-04	6.0000e-04	9.0000e-04	0.0012	9.0000e-04	6.0000e-04	3.0000e-04
6	2.0000e-04	4.0000e-04	6.0000e-04	8.0000e-04	6.0000e-04	4.0000e-04	2.0000e-04
7	1.0000e-04	2.0000e-04	3.0000e-04	4.0000e-04	3.0000e-04	2.0000e-04	1.0000e-04

Q3:

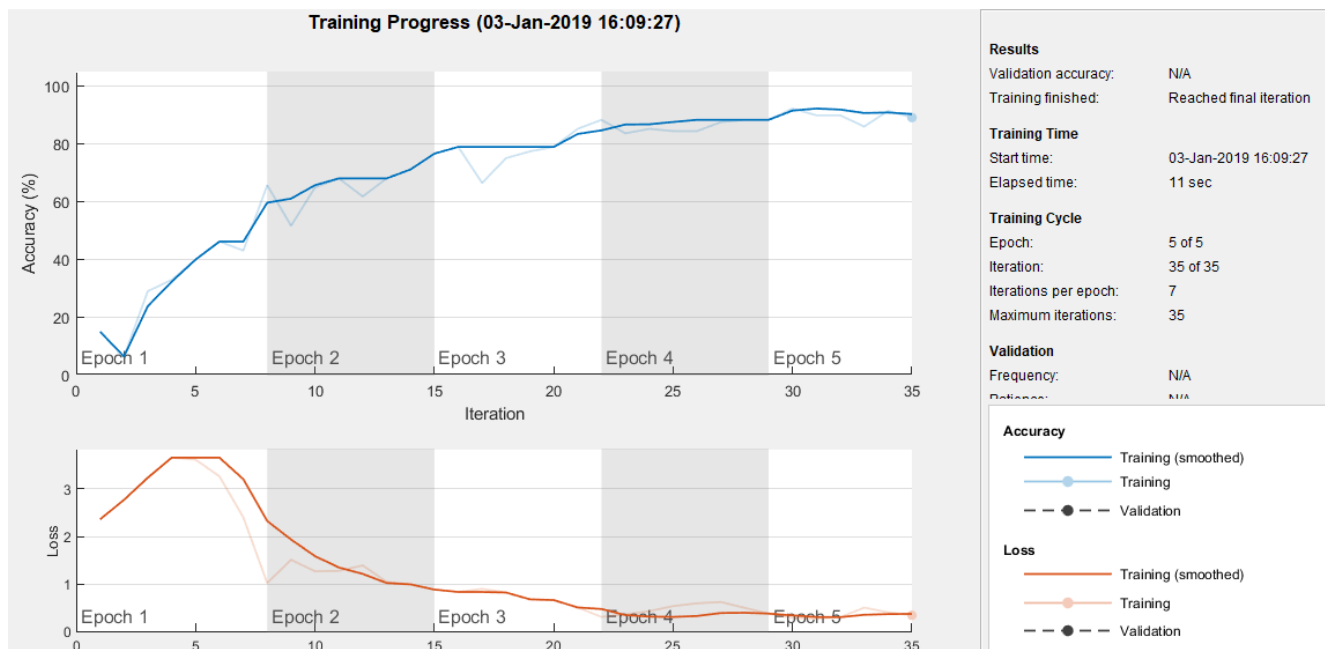
實驗一

(1) Flowchart of programming.

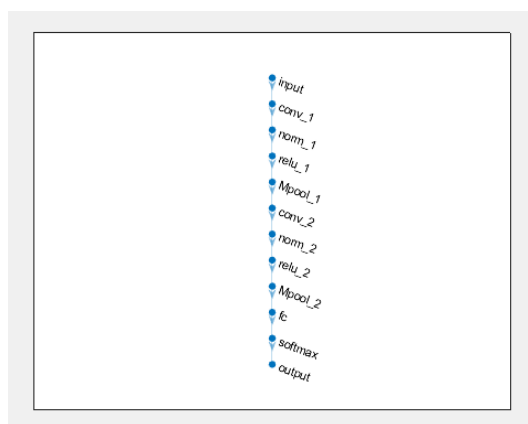
Set initial value(ex: test number) → load image(用助教給的) → design model → set option
→ train → show result



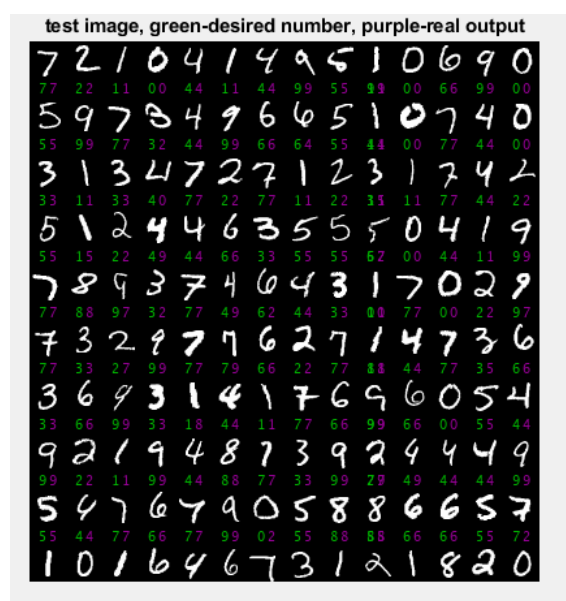
(2) Plot the average error vs. iteration, CPU time in learning.



(3) 輸出各層抽取的特徵圖。



(4) 輸出 150 個測試的圖形



(5) confusion matrix

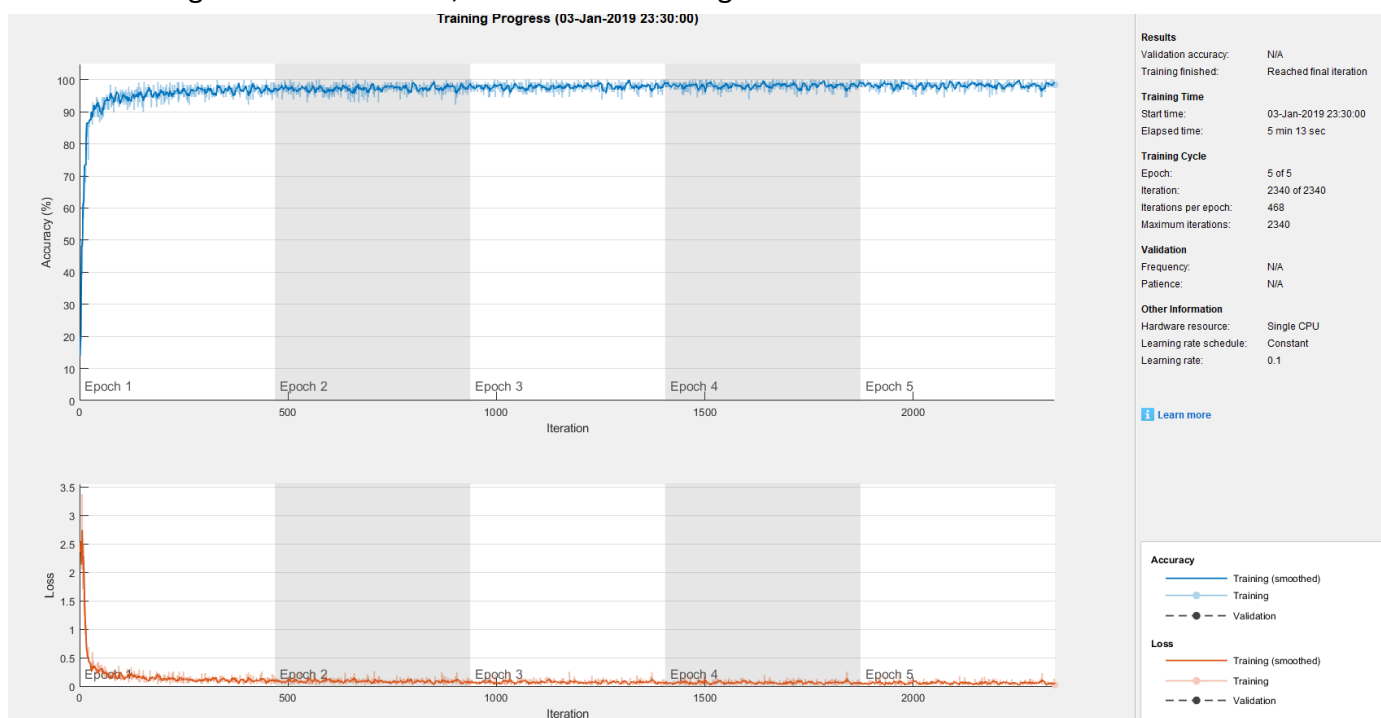
Confusion Matrix											
Output Class	1	2	3	4	5	6	7	8	9	10	
	74 7.4%	0 0.0%	0 0.0%	0 0.0%	1 0.1%	1 0.1%	3 0.3%	0 0.0%	1 0.1%	0 0.0%	92.5% 7.5%
	0 0.0%	121 12.1%	2 0.2%	3 0.3%	0 0.0%	0 0.0%	0 0.0%	1 0.1%	2 0.2%	0 0.0%	93.8% 6.2%
	3 0.3%	0 0.0%	102 10.2%	4 0.4%	0 0.0%	1 0.1%	7 0.7%	5 0.5%	7 0.7%	1 0.1%	78.5% 21.5%
	0 0.0%	0 0.0%	0 0.0%	81 8.1%	0 0.0%	2 0.2%	0 0.0%	1 0.1%	2 0.2%	2 0.2%	92.0% 8.0%
	0 0.0%	0 0.0%	1 0.1%	0 0.0%	74 7.4%	1 0.1%	4 0.4%	0 0.0%	1 0.1%	0 0.0%	91.4% 8.6%
	2 0.2%	3 0.3%	0 0.0%	12 1.2%	0 0.0%	71 7.1%	5 0.5%	1 0.1%	0 0.0%	0 0.0%	75.5% 24.5%
	2 0.2%	0 0.0%	2 0.2%	0 0.0%	2 0.2%	1 0.1%	68 6.8%	0 0.0%	1 0.1%	0 0.0%	89.5% 10.5%
	1 0.1%	0 0.0%	5 0.5%	3 0.3%	2 0.2%	6 0.6%	0 0.0%	86 8.6%	5 0.5%	11 1.1%	72.3% 27.7%
	1 0.1%	2 0.2%	3 0.3%	3 0.3%	0 0.0%	1 0.1%	0 0.0%	0 0.0%	67 6.7%	0 0.0%	87.0% 13.0%
	2 0.2%	0 0.0%	1 0.1%	1 0.1%	31 3.1%	3 0.3%	0 0.0%	5 0.5%	3 0.3%	80 8.0%	63.5% 36.5%
	87.1% 12.9%	96.0% 4.0%	87.9% 12.1%	75.7% 24.3%	67.3% 32.7%	81.6% 18.4%	78.2% 21.8%	86.9% 13.1%	75.3% 24.7%	85.1% 14.9%	82.4% 17.6%
Target Class											

實驗二

(1) Flowchart of programming.

同上

(2) Plot the average error vs. iteration, CPU time in learning.



(3) 輸出各層抽取的特徵圖。

同上

(4) 輸出 150 個測試的圖形

