

COMP / ELEC / STAT 502 Pizza Points

Pizza Points earned for various things, outside competition

Yiliang (Ian) Fan for discovering error in eq. (5.28)

Details of competition points

Color codes: Red = 1 point, Blue = 0.5 point

Groups in { } are tied

HW04 Part I -----

HW04 P2 Best fit to $1/x$ on test data

Group 4: Alex Teich, Grant Lu, Kevin Clark, Jason Dennis

Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng

Group 2: Wangsheng Xu, Sibbo Li, Jiang Lin, Hao Zhang

HW04 -----

HW04 P2 Best fit to $1/x$ on test data

Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng

Group 4: Alex Teich, Grant Lu, Kevin Clark, Jason Dennis

Group 7: Kun Cao, Yiliang Fan, Yuxiao Liang

HW04 P3 Best fit to $1/x$ on test data

Group 7: Kun Cao, Yiliang Fan, Yuxiao Liang

Group 5: Jon Clegg, John Potthoff, Fatih Yilmaz

Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng

HW04 P3 Shortest training with same good fit to $1/x$ on test data

Group 5: Jon Clegg, John Potthoff, Fatih Yilmaz

Group 1: Xinrui Dai, Jing Wang, Hongrui Wei

Group 2: Sibbo Li, Jiang Lin, Wangsheng Xu, Hao Zhang

HW04 P4 Best classification accuracy on iris test data

Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng

{Group 1: Xinrui Dai, Jing Wang, Hongrui Wei

Group 2: Sibbo Li, Jiang Lin, Wangsheng Xu, Hao Zhang

Group 5: Jon Clegg, John Potthoff, Fatih Yilmaz

Group 6: Xinghao Huang, Tiancheng Jiang, Mingke Ma, Haoyu Wang

Group 7: Kun Cao, Yiliang Fan, Yuxiao Liang }

HW04 P4 Smallest network achieving >95% classification accuracy on iris test data

Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng

Group 2: Sibbo Li, Jiang Lin, Wangsheng Xu, Hao Zhang

Group 7: Kun Cao, Yiliang Fan, Yuxiao Liang

Quiz1 -----

Scores above 90%, in descending order of score

Fatih Yilmaz

Scores between 75 - 90%, in descending order of score

Hao Zhang, John Potthoff, {Kevin Clark, Jon Clegg, Xinrui Dai, Zhenwei Feng, Sibor Li, Grant Lu, Mingke Ma, Haoyu Wang, Jing Wang, Wangsheng Xu, Yujie Zhao}

HW05 -----HW05 P1 Best average classification accuracy

Group 6: Xinghao Huang, Tiancheng Jiang, Mingke Ma, Haoyu Wang	Test Accuracy
Group 7: Yiliang Fan	97.77 %
Group 8: Qian Cao, Xingy Song, Yin Xiong, Yujie Zhao	>97 %
	96.83

HW05 P1 Most reliable classification with >90% accuracy

	STD
Group 5: Kun Cao, Jon Clegg, John Potthoff, Fatih Yilmaz	0.02
Group 4: Alex Teich, Grant Lu, Kevin Clark, Jason Dennis	0.05
Group 6: Xinghao Huang, Tiancheng Jiang, Mingke Ma, Haoyu Wang	0.66

HW05 P2.2 Best fit

Group 2: Sibor Li, Jiang Lin, Wangsheng Xu, Hao Zhang
 Group 4: Alex Teich, Grant Lu, Kevin Clark, Jason Dennis
 Group 5: Kun Cao, Jon Clegg, John Potthoff, Fatih Yilmaz

HW06 -----HW6 P2 Best accuracies (provided results were produced correctly)

{Group 1: Xinrui Dai, Jing Wang, Hongrui Wei}
 {Group 4: Alex Teich, Grant Lu, Kevin Clark, Jason Dennis}
 {Group 6: Xinghao Huang, Tiancheng Jiang, Mingke Ma, Haoyu Wang}
 Group 7: Yiliang Fan
 Group 2: Sibor Li, Jiang Lin, Wangsheng Xu, Hao Zhang

HW6 P2 Best documentation

Group 2: Sibor Li, Jiang Lin, Wangsheng Xu, Hao Zhang
 No more ☹️

HW07 -----HW7 P2 Best SOM learning (placement of prototypes in data space, four Gaussian clusters)

2D:

Group 5: Kun Cao, Jon Clegg, John Potthoff, Fatih Yilmaz
 Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng
 Group 7: Yiliang Fan

3D: no one did this ☹️

HW7 P2 Fastest SOM convergence (of correct learning)

Group 8: Qian Cao, Xingy Song, Yin Xiong, Yujie Zhao	100,000 steps
Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng	400,000 steps
Group 4: Alex Teich, Grant Lu, Kevin Clark, Jason Dennis	550,000 steps

HW7 P2 Best SOM density maps

Group 8: Qian Cao, Xingy Song, Yin Xiong, Yujie Zhao
 Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng
 Group 1: Xinrui Dai, Jing Wang, Hongrui Wei

HW7 P3 Best visualization of cluster delineation in SOM

Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng

Group 1: Xinrui Dai, Jing Wang, Hongriu Wei

No more 😞 (See explanation in Announcement "HW07".)

HW7 P4 Best cluster identification in SOM (iris)

Group 2: Sib0 Li, Jiang Lin, Wangsheng Xu, Hao Zhang

Group 1: Xinrui Dai, Jing Wang, Hongriu Wei

No more 😞 (See explanation in Announcement "HW07".)

HW7 P4 Best visualization of SOM's knowledge (iris) [only layered representations are awarded points]

Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng

Group 5: Kun Cao, Jon Clegg, John Potthoff, Fatih Yilmaz

Group 1: Xinrui Dai, Jing Wang, Hongriu Wei

HW7 P5.b Best accuracies (provided results were produced correctly)

Group 6: Xinghao Huang, Tiancheng Jiang, Mingke Ma, Haoyu Wang 89.9%

Group 1: Xinrui Dai, Jing Wang, Hongriu Wei 88.8%

{Group 3: Pencheng Hong, Shuai Jia, Yidi Yang, Zhenwei Feng 85.5%

Group 2: Sib0 Li, Jiang Lin, Wangsheng Xu, Hao Zhang } 85.5%

Quiz2 -----Scores above 90%, in descending order of score

Zhenwei Feng, Mingke Ma, Hao Zhang

Scores between 81 - 90%, in descending order of score

Jing Wang, Haoyu Wang, Shuai Jia, {Xinrui Dai, John Potthoff}, Yiliang Fan, Alex Teich

Exam1 -----Exam1 P1 Best Tiger reconstruction

Learning efforts for equally good quality 4:1 compression / reconstruction are listed (provided the # learn steps was clear in reporting of results). See the document Tiger-compression_learning-efforts.2019 in Canvas Files/ for sample images.

Pizza Points: 3 for under 100K learn steps; 2 for under 250K learn steps; 1 for all others.

Name	# Learn Steps	On-line / Batch	Batch Size	Learning Rate	Momentum	Mean Abs. Diff.	Comment	PP
Potthoff, John	56000	Batch	14	0.006 -> 0.0006	0.8	2.34	scale to [-1,1]	3
Feng, Zhenwei	66000	Online	1	0.03	0.7	2.59	scale to [0,1]	3
Yang, Yidi	66000	Online	1	0.03	0.7	2.67	scale to [0,1]	3

Ma, Mingke	124080	Online	1	0.01	0.5	2.10	scale to [-0.5,0.5]	2
Lin, Jiang	132000	Batch	40	0.003	0.7	2.23	scale to [-1,1]	2
Lin, Jiang	132000	Batch	40	0.003	0.7	2.23	scale to [-1,1]	2
Li, Sibor	132000	Batch	40	0.005	0.5	2.37	scaling ?	2
Xu, Wangsheng	264000	Batch	40	0.003	0.7	2.27	unclear scaling	1
Wang, Jing	316800	Batch	40	0.0003	0.7	3.07	scale to [-1,1]	1
Wei, Hongrui	396000	Batch	1320	0.0005	0.7	2.51	scale to [-1,1]	1
Jia, Shuai	600000	Batch	20	0.005	0.9	3.98	scale to [0,1]	1
Dai, Xinrui	660000	Batch	40	0.0005	0.7	2.49	scale to [-1,1]	1
Wang, Haoyu	660000	Batch	1320	0.5->0.15->0.01		2.21	scale to [0,0.2]	1
Teich, Alex	1320000	Batch	1320	0.0001	0.9	2.06	scale to ~[-0.5,0.5]	1