

COMP / ELEC / STAT 502 Pizza Points

Details of competition points

Color codes: **Red = 1 point**, **Blue = 0.5 point** Groups in { } are tied

If a category does not have the advertised number of winners it means that other groups did not qualify for some reason. (For example, if you did not tell us the size of your network in HW04, P4, we cannot evaluate your results for that category.)

Extra bonus points

These are in categories that do not count in the 100% level of PP-s, which is the sum of available PP-s in all regular competition categories (black fonts). In principle, the extra PP-s can bring your PP sum over the 100% level 😊

PP status

Total available challenge PP-s (to each individual) to date: 20 (Challenge PP-s are indicated at each category in parentheses)

Miscellaneous points (2)

“delta of bias”, Piazza 3/2/21

Christine Zhao

“contribution of bias delta” Piazza 3/4/21

HW04 Part I (1)

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

Group 4: Eric Antley, Andrew Wells, Christine Zhao

{Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan, Wei Xia

Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten}

Quiz 1

Quiz 1 > 90% score

David Dai

Quiz 1 > 80% score

Shuai Feng, Zhenyang Lin, Yihai Long, Bocheng Wan

HW04 (5) -----

Figures showing the merits for the PP-s are shown in file PP_HW04.pdf posted in Canvas ->Files.

HW04 P2 Best fit to 1/x on test data

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten}

Group 4: Eric Antley, Andrew Wells, Christine Zhao

HW04 P3 Best fit to 1/x on test data

Group 4: Eric Antley, Andrew Wells, Christine Zhao

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten}

Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan

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

Group 6: Yan Li, Shikun Wang, James McNaney 40,000

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten < 200,000

Group 7: David Dai, Shuai Feng 500,000

HW04 P4 Best classification accuracy on iris test data

{Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu 96.0%

Group 6: Yan Li, Shikun Wang, James McNaney 96.0%}

{Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan 93.3%

Group 7: David Dai, Shuai Feng} 93.3%}

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

Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu (4+1)-(3+1)-3

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten (4+1)-(2+1)-3

(Blue: class acc not reported, giving benefit of doubt based on PCA plot.)

HW05 (5) -----

Figures showing the merits for the PP-s are shown in file PP_HW05.pdf posted in Canvas ->Files.

HW05 P1 Best average classification accuracy on test data (top 3)

Group 6: James McNaney 97.3%

Group 7: David Dai, Shuai Feng ~ 97%

Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai 95.11%

HW05 P1 Most reliable classification (smallest std) with >90% accuracy (top 3)

Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan 0.012

Group 6: James McNaney 0.028

Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai 0.063

HW05 P2.2 Best fit (top 3)

Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten

Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu

HW5 P3 Best GHA P*P' accuracy (top 5) (provided results were produced correctly)Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu $O(10^{-4})$ {Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai $O(10^{-4} - 10^{-3})$ Group 7: David Dai, Shuai Feng} $O(10^{-4} - 10^{-3})$ Group 4: Eric Antley, Andrew Wells, Christine Zhao $O(10^{-3})$

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten

 $O(10^{-3} - 10^{-2})$ HW5 P3 Best documentation (top 5)

Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu

Group 7: David Dai, Shuai Feng

Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten

Group 4: Eric Antley, Andrew Wells, Christine Zhao

HW06 (7) -----

Figures showing the merits for the PP-s are shown in file PP_HW06.pdf posted in Canvas ->Files. Groups in blue are "honorable mention".

HW6 P2 Best SOM learning (placement of prototypes in data space, four Gaussian clusters)

Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai

{Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten

Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan}

Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu

Group 7: David Dai, Shuai Feng

HW6 P2 Fastest SOM convergence (of correct learning)

Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai 40,000

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten 500,000

Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan 800,000

Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu 300,000

HW6 P2 Best SOM density maps

{Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten

Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai

Group 7: David Dai, Shuai Feng}

Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu

Group 4: Eric Antley, Andrew Wells, Christine Zhao

HW6 P3 Best visualization of cluster delineation in SOM

Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan

{Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten

Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai}

{Group 7: David Dai, Shuai Feng

Group 2: Chule Hou, Yin Hu, Tianjian Sun, Boyang Yu

Group 4: Eric Antley, Andrew Wells, Christine Zhao}

HW6 P4 Best cluster identification in SOM (iris)

Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten

Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai

Group 4: Eric Antley, Andrew Wells, Christine Zhao

HW6 P4 Best visualization of SOM's knowledge (iris) [only layered representations are awarded points]

Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan

Group 3: Em Gamboa, Leo Sanchez Solis, Bradley Van Allen, Zachary Wooten

Group 5: Mary Bajomo, Kyle Kyzer, Kshitij Rai

Group 4: Eric Antley, Andrew Wells, Christine Zhao

HW6 P5.b Best accuracies (provided results were produced correctly)

Group 1: Zhenyang Lin, Yihai Long, Bocheng Wan

83.02%

Quiz 2 -----

Quiz 1 ≥ 90% score

Yin Hu

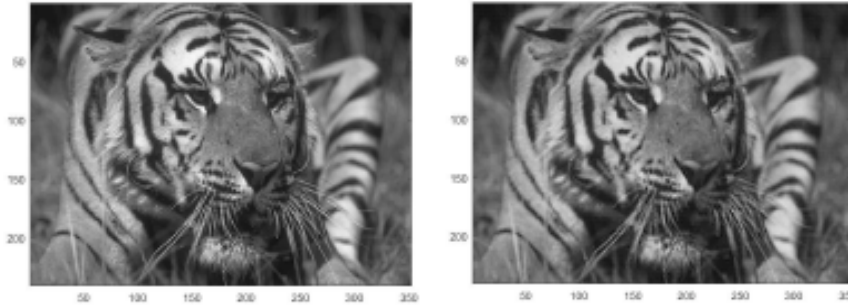
Quiz 1 ≥ 75% score

David Dai, Bradley Van Allen

(Over please, for Exam 01 PP-s.)

Exam 1 -----Compression / restoration of the Tiger

4:1 compression / reconstruction learning efforts of the Tiger. The results in the upper part of the table are listed for solutions that are of the quality shown here. Original tiger at left, reconstructed at right.



Short learning (< 100K steps) received 3 PP-s, O(100K) steps 2 PP-s, O(1M) steps 1 PP.

Name	Learning Count	Learning Type	Batch Size	Learning Rate	Mean Abs. Diff	Scaling (global min/max) to	PP
Sanchez	50000	online	1	0.03	unknown	div by max	3
Dai	62400	batch	2	0.2	2.28	[-0.75,75]	3
Feng	62400	batch	2	0.2	2.37	[-0.75,75]	3
Van Allen	100000	online	1	0.03	2.40	[-0.9,0.9]	2
Wooten	300000	online	1	0.001	unknown	[-1,1]	2
Zhao	949780	online	1	0.1	2.35	div by max	1
Bajomo	1000000	online	1	0.001	unknown	[0.95,0.95]	1
McNaney	3055800	online	1	0.0004	2.47	unknown	1
Additional bonuses for somewhat lower –still very good- quality reconstruction as shown below (but some unclear issue with the learning)							
Hou	unknown	batch	40	0.0001	3.06	[0,1]	1
Antley	3500	online	1	0.03 decr.	18.00	[-1,1]	1
Long	1500000	batch	300	0.001-0.0005	unknown	[0,1]1	1

