java -jar RankLib-2.18.jar -train normalize/SBFL\_chart.txt -ranker 1 -kcv 5 -kcvmd no\_Chart\_result/ -kcvmn rn -metric2t MAP -metric2T MAP -tvs 0.8

使用RankNet，”-kcv 5”分成5個fold，” -kcvmd no\_Chart\_result/”結果存在這個資料夾，” -kcvmn rn”每個fold的後贅字加上rn，” -tvs 0.8”0.8設定為訓練集0.2設為驗證集。

結果:

Discard orig. features

Training data: normalize/SBFL\_chart.txt

Cross validation: 5 folds.

Train-Validation split: 0.8

Feature vector representation: Dense.

Ranking method: RankNet

Feature description file: Unspecified. All features will be used.

Train metric: MAP

Test metric: MAP

Feature normalization: No

Models directory: no\_Chart\_result/

Models' name: rn

[+] RankNet's Parameters:

No. of epochs: 100

No. of hidden layers: 1

No. of hidden nodes per layer: 10

Learning rate: 5.0E-5

Reading feature file [normalize/SBFL\_chart.txt]... [Done.]

(26 ranked lists, 416 entries read)

Creating data for 5 folds... [Done]

Train[0]= "10006" "10007" "10008" "10009" "10010" "10011" "10012" "10013" "10014" "10015" "10016" "10017" "10018" "10019" "10020" "10021" "10022"

Train[1]= "10001" "10002" "10003" "10004" "10005" "10011" "10012" "10013" "10014" "10015" "10016" "10017" "10018" "10019" "10020" "10021" "10022"

Train[2]= "10001" "10002" "10003" "10004" "10005" "10006" "10007" "10008" "10009" "10010" "10016" "10017" "10018" "10019" "10020" "10021" "10022"

Train[3]= "10001" "10002" "10003" "10004" "10005" "10006" "10007" "10008" "10009" "10010" "10011" "10012" "10013" "10014" "10015" "10021" "10022"

Train[4]= "10001" "10002" "10003" "10004" "10005" "10006" "10007" "10008" "10009" "10010" "10011" "10012" "10013" "10014" "10015" "10016" "10017"

Validate[0]= "10026" "10025" "10024" "10023"

Validate[1]= "10026" "10025" "10024" "10023"

Validate[2]= "10026" "10025" "10024" "10023"

Validate[3]= "10026" "10025" "10024" "10023"

Validate[4]= "10020" "10019" "10018"

Test[0]= "10001" "10002" "10003" "10004" "10005"

Test[1]= "10006" "10007" "10008" "10009" "10010"

Test[2]= "10011" "10012" "10013" "10014" "10015"

Test[3]= "10016" "10017" "10018" "10019" "10020"

Test[4]= "10021" "10022" "10023" "10024" "10025" "10026"

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.0 | 0.4481 | 0.5 |

2 | 0.0 | 0.4481 | 0.5 |

3 | 0.0 | 0.4481 | 0.5 |

4 | 0.0 | 0.4481 | 0.5 |

5 | 0.0 | 0.4481 | 0.5 |

6 | 0.0 | 0.4481 | 0.5 |

7 | 0.0 | 0.4481 | 0.5 |

8 | 0.0 | 0.4481 | 0.5 |

9 | 0.0 | 0.4481 | 0.5 |

10 | 0.0 | 0.4481 | 0.5 |

11 | 0.0 | 0.4481 | 0.5 |

12 | 0.0 | 0.4481 | 0.5 |

13 | 0.0 | 0.4481 | 0.5 |

14 | 0.0 | 0.4481 | 0.5 |

15 | 0.0 | 0.4481 | 0.5 |

16 | 0.0 | 0.4481 | 0.5 |

17 | 0.0 | 0.4481 | 0.5 |

18 | 0.0 | 0.4481 | 0.5 |

19 | 0.0 | 0.4481 | 0.5 |

20 | 0.0 | 0.4481 | 0.5 |

21 | 0.0 | 0.4481 | 0.5 |

22 | 0.0 | 0.4481 | 0.5 |

23 | 0.0 | 0.4481 | 0.5 |

24 | 0.0 | 0.4481 | 0.5 |

25 | 0.0 | 0.4481 | 0.5 |

26 | 0.0 | 0.4481 | 0.5 |

27 | 0.0 | 0.4591 | 0.5 |

28 | 0.0 | 0.4591 | 0.5 |

29 | 0.0 | 0.4591 | 0.5 |

30 | 0.0 | 0.4591 | 0.5 |

31 | 0.0 | 0.4591 | 0.5 |

32 | 0.0 | 0.4591 | 0.5 |

33 | 0.0 | 0.4591 | 0.5 |

34 | 0.0 | 0.4591 | 0.5 |

35 | 0.0 | 0.4591 | 0.5 |

36 | 0.0 | 0.4591 | 0.5 |

37 | 0.0 | 0.4591 | 0.5 |

38 | 0.0 | 0.4591 | 0.5 |

39 | 0.0 | 0.4591 | 0.5 |

40 | 0.0 | 0.4591 | 0.5 |

41 | 0.0 | 0.4591 | 0.5 |

42 | 0.0 | 0.4591 | 0.5 |

43 | 0.0 | 0.4591 | 0.5 |

44 | 0.0 | 0.4591 | 0.5 |

45 | 0.0 | 0.4591 | 0.5 |

46 | 0.0 | 0.4591 | 0.5 |

47 | 0.0 | 0.4591 | 0.5 |

48 | 0.0 | 0.4591 | 0.5 |

49 | 0.0 | 0.4591 | 0.5 |

50 | 0.0 | 0.4591 | 0.5 |

51 | 0.0 | 0.4591 | 0.5 |

52 | 0.0 | 0.4591 | 0.5 |

53 | 0.0 | 0.4591 | 0.5 |

54 | 0.0 | 0.4591 | 0.5 |

55 | 0.0 | 0.4591 | 0.5 |

56 | 0.0 | 0.4591 | 0.5 |

57 | 0.0 | 0.4591 | 0.5 |

58 | 0.0 | 0.4591 | 0.5 |

59 | 0.0 | 0.4591 | 0.5 |

60 | 0.0 | 0.4591 | 0.5 |

61 | 0.0 | 0.4591 | 0.5 |

62 | 0.0 | 0.4591 | 0.5 |

63 | 0.0 | 0.4591 | 0.5 |

64 | 0.0 | 0.4591 | 0.5 |

65 | 0.0 | 0.4591 | 0.5 |

66 | 0.0 | 0.4591 | 0.5 |

67 | 0.0 | 0.4591 | 0.5 |

68 | 0.0 | 0.4591 | 0.5 |

69 | 0.0 | 0.4591 | 0.5 |

70 | 0.0 | 0.4591 | 0.5 |

71 | 0.0 | 0.4591 | 0.5 |

72 | 0.0 | 0.4591 | 0.5 |

73 | 0.0 | 0.4591 | 0.5 |

74 | 0.0 | 0.4591 | 0.5 |

75 | 0.0 | 0.4591 | 0.5 |

76 | 0.0 | 0.4591 | 0.5 |

77 | 0.0 | 0.4591 | 0.5 |

78 | 0.0 | 0.4591 | 0.5 |

79 | 0.0 | 0.4591 | 0.5 |

80 | 0.0 | 0.4591 | 0.5 |

81 | 0.0 | 0.4591 | 0.5 |

82 | 0.0 | 0.4591 | 0.5 |

83 | 0.0 | 0.4591 | 0.5 |

84 | 0.0 | 0.4591 | 0.5 |

85 | 0.0 | 0.4591 | 0.5 |

86 | 0.0 | 0.4591 | 0.5 |

87 | 0.0 | 0.4591 | 0.5 |

88 | 0.0 | 0.4591 | 0.5 |

89 | 0.0 | 0.4591 | 0.5 |

90 | 0.0 | 0.4591 | 0.5 |

91 | 0.0 | 0.4591 | 0.5 |

92 | 0.0 | 0.4591 | 0.5 |

93 | 0.0 | 0.4591 | 0.5 |

94 | 0.0 | 0.4591 | 0.5 |

95 | 0.0 | 0.4591 | 0.5 |

96 | 0.0 | 0.4591 | 0.5 |

97 | 0.0 | 0.4591 | 0.5 |

98 | 0.0 | 0.4591 | 0.5 |

99 | 0.0 | 0.4591 | 0.5 |

100 | 0.0 | 0.4591 | 0.5 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.4481

MAP on validation data: 0.5

---------------------------------

Fold-1 model saved to: rn

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.4185 | 0.0944 | 0.0907 |

2 | 0.4185 | 0.0944 | 0.0907 |

3 | 0.4185 | 0.0944 | 0.0907 |

4 | 0.4185 | 0.0944 | 0.0907 |

5 | 0.4185 | 0.0944 | 0.0907 |

6 | 0.4185 | 0.0944 | 0.0907 |

7 | 0.4185 | 0.0944 | 0.0907 |

8 | 0.4185 | 0.0944 | 0.0907 |

9 | 0.4185 | 0.0944 | 0.0907 |

10 | 0.4185 | 0.0944 | 0.0907 |

11 | 0.4185 | 0.0944 | 0.0907 |

12 | 0.4185 | 0.0944 | 0.0907 |

13 | 0.4185 | 0.0944 | 0.0907 |

14 | 0.4185 | 0.0944 | 0.0907 |

15 | 0.4185 | 0.0944 | 0.0907 |

16 | 0.4185 | 0.0944 | 0.0907 |

17 | 0.4185 | 0.0944 | 0.0907 |

18 | 0.4185 | 0.0944 | 0.0907 |

19 | 0.4185 | 0.0944 | 0.0907 |

20 | 0.4185 | 0.0944 | 0.0907 |

21 | 0.4185 | 0.0944 | 0.0907 |

22 | 0.4185 | 0.0944 | 0.0907 |

23 | 0.4185 | 0.0944 | 0.0907 |

24 | 0.4185 | 0.0944 | 0.0907 |

25 | 0.4185 | 0.0944 | 0.0907 |

26 | 0.4185 | 0.0944 | 0.0907 |

27 | 0.4185 | 0.0944 | 0.0907 |

28 | 0.4185 | 0.0944 | 0.0907 |

29 | 0.4185 | 0.0944 | 0.0907 |

30 | 0.4185 | 0.0944 | 0.0907 |

31 | 0.4185 | 0.0944 | 0.0907 |

32 | 0.4185 | 0.0944 | 0.0907 |

33 | 0.4185 | 0.0944 | 0.0907 |

34 | 0.4185 | 0.0944 | 0.0907 |

35 | 0.4185 | 0.0944 | 0.0907 |

36 | 0.4185 | 0.0944 | 0.0907 |

37 | 0.4185 | 0.0944 | 0.0907 |

38 | 0.4185 | 0.0944 | 0.0907 |

39 | 0.4185 | 0.0944 | 0.0907 |

40 | 0.4185 | 0.0944 | 0.0907 |

41 | 0.4185 | 0.0944 | 0.0907 |

42 | 0.4185 | 0.0944 | 0.0907 |

43 | 0.4185 | 0.0944 | 0.0907 |

44 | 0.4185 | 0.0944 | 0.0907 |

45 | 0.4185 | 0.0944 | 0.0907 |

46 | 0.4185 | 0.0944 | 0.0907 |

47 | 0.4185 | 0.0944 | 0.0907 |

48 | 0.4185 | 0.0944 | 0.0907 |

49 | 0.4185 | 0.0944 | 0.0907 |

50 | 0.4185 | 0.0944 | 0.0907 |

51 | 0.4185 | 0.0944 | 0.0907 |

52 | 0.4185 | 0.0944 | 0.0907 |

53 | 0.4185 | 0.0944 | 0.0907 |

54 | 0.4185 | 0.0944 | 0.0907 |

55 | 0.4185 | 0.0944 | 0.0907 |

56 | 0.4185 | 0.0944 | 0.0907 |

57 | 0.4185 | 0.0944 | 0.0907 |

58 | 0.4185 | 0.0944 | 0.0907 |

59 | 0.4185 | 0.0944 | 0.0907 |

60 | 0.4185 | 0.0944 | 0.0907 |

61 | 0.4185 | 0.0944 | 0.0907 |

62 | 0.4185 | 0.0944 | 0.0907 |

63 | 0.4185 | 0.0944 | 0.0907 |

64 | 0.4185 | 0.0944 | 0.0907 |

65 | 0.4185 | 0.0944 | 0.0907 |

66 | 0.4185 | 0.0944 | 0.0907 |

67 | 0.4185 | 0.0944 | 0.0907 |

68 | 0.4185 | 0.0944 | 0.0907 |

69 | 0.4185 | 0.0944 | 0.0907 |

70 | 0.4185 | 0.0944 | 0.0907 |

71 | 0.4185 | 0.0944 | 0.0907 |

72 | 0.4185 | 0.0944 | 0.0907 |

73 | 0.4185 | 0.0944 | 0.0907 |

74 | 0.4185 | 0.0944 | 0.0907 |

75 | 0.4185 | 0.0944 | 0.0907 |

76 | 0.4185 | 0.0944 | 0.0907 |

77 | 0.4185 | 0.0944 | 0.0907 |

78 | 0.4185 | 0.0944 | 0.0907 |

79 | 0.0353 | 0.3891 | 0.4567 |

80 | 0.0353 | 0.3891 | 0.4567 |

81 | 0.0353 | 0.3891 | 0.4567 |

82 | 0.0353 | 0.3891 | 0.4567 |

83 | 0.0353 | 0.3891 | 0.4567 |

84 | 0.0353 | 0.3891 | 0.4567 |

85 | 0.0353 | 0.3891 | 0.4567 |

86 | 0.0353 | 0.3891 | 0.4567 |

87 | 0.0353 | 0.3891 | 0.4567 |

88 | 0.0353 | 0.3891 | 0.4567 |

89 | 0.0353 | 0.3891 | 0.4567 |

90 | 0.0353 | 0.3891 | 0.4567 |

91 | 0.0353 | 0.3891 | 0.4567 |

92 | 0.0353 | 0.3891 | 0.4567 |

93 | 0.0353 | 0.3891 | 0.4567 |

94 | 0.0353 | 0.3891 | 0.4567 |

95 | 0.0353 | 0.3891 | 0.4567 |

96 | 0.0353 | 0.3891 | 0.4567 |

97 | 0.0353 | 0.3891 | 0.4567 |

98 | 0.0353 | 0.3891 | 0.4567 |

99 | 0.0353 | 0.3891 | 0.4567 |

100 | 0.0353 | 0.3891 | 0.4567 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.3891

MAP on validation data: 0.4567

---------------------------------

Fold-2 model saved to: rn

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.3988 | 0.089 | 0.0907 |

2 | 0.3988 | 0.089 | 0.0907 |

3 | 0.3988 | 0.089 | 0.0907 |

4 | 0.3988 | 0.089 | 0.0907 |

5 | 0.3988 | 0.089 | 0.0907 |

6 | 0.3988 | 0.089 | 0.0907 |

7 | 0.3988 | 0.089 | 0.0907 |

8 | 0.3988 | 0.089 | 0.0907 |

9 | 0.3988 | 0.089 | 0.0907 |

10 | 0.3988 | 0.089 | 0.0907 |

11 | 0.3988 | 0.089 | 0.0907 |

12 | 0.3988 | 0.089 | 0.0907 |

13 | 0.3988 | 0.089 | 0.0907 |

14 | 0.3988 | 0.089 | 0.0907 |

15 | 0.3988 | 0.089 | 0.0907 |

16 | 0.3988 | 0.089 | 0.0907 |

17 | 0.3988 | 0.089 | 0.0907 |

18 | 0.3988 | 0.089 | 0.0907 |

19 | 0.3988 | 0.089 | 0.0907 |

20 | 0.3988 | 0.089 | 0.0907 |

21 | 0.3988 | 0.089 | 0.0907 |

22 | 0.3988 | 0.089 | 0.0907 |

23 | 0.3988 | 0.089 | 0.0907 |

24 | 0.3988 | 0.089 | 0.0907 |

25 | 0.3988 | 0.089 | 0.0907 |

26 | 0.3988 | 0.089 | 0.0907 |

27 | 0.3988 | 0.089 | 0.0907 |

28 | 0.3988 | 0.089 | 0.0907 |

29 | 0.3988 | 0.089 | 0.0907 |

30 | 0.3988 | 0.089 | 0.0907 |

31 | 0.3988 | 0.089 | 0.0907 |

32 | 0.3988 | 0.089 | 0.0907 |

33 | 0.3988 | 0.089 | 0.0907 |

34 | 0.3988 | 0.089 | 0.0907 |

35 | 0.3988 | 0.089 | 0.0907 |

36 | 0.3988 | 0.089 | 0.0907 |

37 | 0.3988 | 0.089 | 0.0907 |

38 | 0.3988 | 0.089 | 0.0907 |

39 | 0.3988 | 0.089 | 0.0907 |

40 | 0.3988 | 0.089 | 0.0907 |

41 | 0.3988 | 0.089 | 0.0907 |

42 | 0.3988 | 0.089 | 0.0907 |

43 | 0.3988 | 0.089 | 0.0907 |

44 | 0.3988 | 0.089 | 0.0907 |

45 | 0.3988 | 0.089 | 0.0907 |

46 | 0.3988 | 0.089 | 0.0907 |

47 | 0.3988 | 0.089 | 0.0907 |

48 | 0.3988 | 0.089 | 0.0907 |

49 | 0.3988 | 0.089 | 0.0907 |

50 | 0.3988 | 0.089 | 0.0907 |

51 | 0.3988 | 0.089 | 0.0907 |

52 | 0.3988 | 0.089 | 0.0907 |

53 | 0.3988 | 0.089 | 0.0907 |

54 | 0.3988 | 0.089 | 0.0907 |

55 | 0.3988 | 0.089 | 0.0907 |

56 | 0.3988 | 0.089 | 0.0907 |

57 | 0.3988 | 0.089 | 0.0907 |

58 | 0.3988 | 0.089 | 0.0907 |

59 | 0.3988 | 0.089 | 0.0907 |

60 | 0.3988 | 0.089 | 0.0907 |

61 | 0.3988 | 0.089 | 0.0907 |

62 | 0.3988 | 0.089 | 0.0907 |

63 | 0.3988 | 0.089 | 0.0907 |

64 | 0.3988 | 0.089 | 0.0907 |

65 | 0.3988 | 0.089 | 0.0907 |

66 | 0.3988 | 0.089 | 0.0907 |

67 | 0.3988 | 0.089 | 0.0907 |

68 | 0.3988 | 0.089 | 0.0907 |

69 | 0.3988 | 0.089 | 0.0907 |

70 | 0.3988 | 0.089 | 0.0907 |

71 | 0.3988 | 0.089 | 0.0907 |

72 | 0.3988 | 0.089 | 0.0907 |

73 | 0.3988 | 0.089 | 0.0907 |

74 | 0.3988 | 0.089 | 0.0907 |

75 | 0.3988 | 0.089 | 0.0907 |

76 | 0.375 | 0.0929 | 0.0907 |

77 | 0.375 | 0.0929 | 0.0907 |

78 | 0.375 | 0.0929 | 0.0907 |

79 | 0.375 | 0.0929 | 0.0907 |

80 | 0.375 | 0.0929 | 0.0907 |

81 | 0.375 | 0.0929 | 0.0907 |

82 | 0.375 | 0.0929 | 0.0907 |

83 | 0.375 | 0.0929 | 0.0907 |

84 | 0.375 | 0.0929 | 0.0907 |

85 | 0.375 | 0.0929 | 0.0907 |

86 | 0.375 | 0.0929 | 0.0907 |

87 | 0.375 | 0.0929 | 0.0907 |

88 | 0.375 | 0.0929 | 0.0907 |

89 | 0.375 | 0.0929 | 0.0907 |

90 | 0.375 | 0.0929 | 0.0907 |

91 | 0.375 | 0.0929 | 0.0907 |

92 | 0.375 | 0.0929 | 0.0907 |

93 | 0.375 | 0.0929 | 0.0907 |

94 | 0.375 | 0.0929 | 0.0907 |

95 | 0.375 | 0.0929 | 0.0907 |

96 | 0.375 | 0.0929 | 0.0907 |

97 | 0.375 | 0.0929 | 0.0907 |

98 | 0.375 | 0.0929 | 0.0907 |

99 | 0.375 | 0.0929 | 0.0907 |

100 | 0.375 | 0.0929 | 0.0907 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.089

MAP on validation data: 0.0907

---------------------------------

Fold-3 model saved to: rn

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.0194 | 0.5192 | 0.4567 |

2 | 0.0194 | 0.5192 | 0.4567 |

3 | 0.0194 | 0.5192 | 0.4567 |

4 | 0.0194 | 0.5192 | 0.4567 |

5 | 0.0194 | 0.5192 | 0.4567 |

6 | 0.0194 | 0.5192 | 0.4567 |

7 | 0.0194 | 0.5192 | 0.4567 |

8 | 0.0194 | 0.5192 | 0.4567 |

9 | 0.0194 | 0.5192 | 0.4567 |

10 | 0.0194 | 0.5192 | 0.4567 |

11 | 0.0194 | 0.5192 | 0.4567 |

12 | 0.0194 | 0.5192 | 0.4567 |

13 | 0.0194 | 0.5192 | 0.4567 |

14 | 0.0194 | 0.5192 | 0.4567 |

15 | 0.0194 | 0.5192 | 0.4567 |

16 | 0.0194 | 0.5192 | 0.4567 |

17 | 0.0194 | 0.5192 | 0.4567 |

18 | 0.0194 | 0.5192 | 0.4567 |

19 | 0.0194 | 0.5192 | 0.4567 |

20 | 0.0194 | 0.5192 | 0.4567 |

21 | 0.0194 | 0.5192 | 0.4567 |

22 | 0.0194 | 0.5192 | 0.4567 |

23 | 0.0194 | 0.5192 | 0.4567 |

24 | 0.0194 | 0.5192 | 0.4567 |

25 | 0.0194 | 0.5192 | 0.4567 |

26 | 0.0194 | 0.5192 | 0.4567 |

27 | 0.0194 | 0.5192 | 0.4567 |

28 | 0.0194 | 0.5192 | 0.4567 |

29 | 0.0194 | 0.5192 | 0.4567 |

30 | 0.0194 | 0.5192 | 0.4567 |

31 | 0.0194 | 0.5192 | 0.4567 |

32 | 0.0194 | 0.5192 | 0.4567 |

33 | 0.0194 | 0.5192 | 0.4567 |

34 | 0.0194 | 0.5192 | 0.4567 |

35 | 0.0194 | 0.5192 | 0.4567 |

36 | 0.0194 | 0.5192 | 0.4567 |

37 | 0.0194 | 0.5192 | 0.4567 |

38 | 0.0194 | 0.5192 | 0.4567 |

39 | 0.0194 | 0.5192 | 0.4567 |

40 | 0.0194 | 0.5192 | 0.4567 |

41 | 0.0194 | 0.5192 | 0.4567 |

42 | 0.0194 | 0.5192 | 0.4567 |

43 | 0.0194 | 0.5192 | 0.4567 |

44 | 0.0194 | 0.5192 | 0.4567 |

45 | 0.0194 | 0.5192 | 0.4567 |

46 | 0.0194 | 0.5192 | 0.4567 |

47 | 0.0194 | 0.5192 | 0.4567 |

48 | 0.0194 | 0.5192 | 0.4567 |

49 | 0.0194 | 0.5192 | 0.4567 |

50 | 0.0194 | 0.5192 | 0.4567 |

51 | 0.0194 | 0.5192 | 0.4567 |

52 | 0.0194 | 0.5192 | 0.4567 |

53 | 0.0194 | 0.5192 | 0.4567 |

54 | 0.0194 | 0.5192 | 0.4567 |

55 | 0.0194 | 0.5192 | 0.4567 |

56 | 0.0194 | 0.5192 | 0.4567 |

57 | 0.0194 | 0.5192 | 0.4567 |

58 | 0.0194 | 0.5192 | 0.4567 |

59 | 0.0194 | 0.5192 | 0.4567 |

60 | 0.0194 | 0.5192 | 0.4567 |

61 | 0.0194 | 0.5192 | 0.4567 |

62 | 0.0194 | 0.5192 | 0.4567 |

63 | 0.0194 | 0.5192 | 0.4567 |

64 | 0.0194 | 0.5192 | 0.4567 |

65 | 0.0194 | 0.5192 | 0.4567 |

66 | 0.0194 | 0.5192 | 0.4567 |

67 | 0.0194 | 0.5192 | 0.4567 |

68 | 0.0194 | 0.5192 | 0.4567 |

69 | 0.0194 | 0.5192 | 0.4567 |

70 | 0.0194 | 0.5192 | 0.4567 |

71 | 0.0194 | 0.5192 | 0.4567 |

72 | 0.0194 | 0.5192 | 0.4567 |

73 | 0.0194 | 0.5192 | 0.4567 |

74 | 0.0194 | 0.5192 | 0.4567 |

75 | 0.0194 | 0.5192 | 0.4567 |

76 | 0.0194 | 0.5192 | 0.4567 |

77 | 0.0194 | 0.5192 | 0.4567 |

78 | 0.0194 | 0.5192 | 0.4567 |

79 | 0.0194 | 0.5192 | 0.4567 |

80 | 0.0194 | 0.5192 | 0.4567 |

81 | 0.0194 | 0.5192 | 0.4567 |

82 | 0.0194 | 0.5192 | 0.4567 |

83 | 0.0194 | 0.5192 | 0.4567 |

84 | 0.0194 | 0.5192 | 0.4567 |

85 | 0.0194 | 0.5192 | 0.4567 |

86 | 0.0194 | 0.5192 | 0.4567 |

87 | 0.0194 | 0.5192 | 0.4567 |

88 | 0.0194 | 0.5192 | 0.4567 |

89 | 0.0194 | 0.5192 | 0.4567 |

90 | 0.0194 | 0.5192 | 0.4567 |

91 | 0.0194 | 0.5192 | 0.4567 |

92 | 0.0194 | 0.5192 | 0.4567 |

93 | 0.0194 | 0.5192 | 0.4567 |

94 | 0.0194 | 0.5192 | 0.4567 |

95 | 0.0194 | 0.5192 | 0.4567 |

96 | 0.0194 | 0.5192 | 0.4567 |

97 | 0.0194 | 0.5192 | 0.4567 |

98 | 0.0194 | 0.5192 | 0.4567 |

99 | 0.0194 | 0.5192 | 0.4567 |

100 | 0.0194 | 0.5192 | 0.4567 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.5192

MAP on validation data: 0.4567

---------------------------------

Fold-4 model saved to: rn

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.4267 | 0.1103 | 0.127 |

2 | 0.4267 | 0.1103 | 0.127 |

3 | 0.4267 | 0.1103 | 0.127 |

4 | 0.4267 | 0.1103 | 0.127 |

5 | 0.4267 | 0.1103 | 0.127 |

6 | 0.4267 | 0.1103 | 0.127 |

7 | 0.4267 | 0.1103 | 0.127 |

8 | 0.4267 | 0.1103 | 0.127 |

9 | 0.4267 | 0.1103 | 0.127 |

10 | 0.4267 | 0.1103 | 0.127 |

11 | 0.4267 | 0.1103 | 0.127 |

12 | 0.4267 | 0.1103 | 0.127 |

13 | 0.4267 | 0.1103 | 0.127 |

14 | 0.4267 | 0.1103 | 0.127 |

15 | 0.4267 | 0.1103 | 0.127 |

16 | 0.4267 | 0.1103 | 0.127 |

17 | 0.4267 | 0.1103 | 0.127 |

18 | 0.4267 | 0.1103 | 0.127 |

19 | 0.4267 | 0.1103 | 0.127 |

20 | 0.4267 | 0.1103 | 0.127 |

21 | 0.4267 | 0.1103 | 0.127 |

22 | 0.4267 | 0.1103 | 0.127 |

23 | 0.4267 | 0.1103 | 0.127 |

24 | 0.4267 | 0.1103 | 0.127 |

25 | 0.4267 | 0.1103 | 0.127 |

26 | 0.4267 | 0.1103 | 0.127 |

27 | 0.4267 | 0.1103 | 0.127 |

28 | 0.4267 | 0.1103 | 0.127 |

29 | 0.4267 | 0.1103 | 0.127 |

30 | 0.4267 | 0.1103 | 0.127 |

31 | 0.4267 | 0.1103 | 0.127 |

32 | 0.4267 | 0.1103 | 0.127 |

33 | 0.4267 | 0.1103 | 0.127 |

34 | 0.4267 | 0.1103 | 0.127 |

35 | 0.4267 | 0.1103 | 0.127 |

36 | 0.4267 | 0.1103 | 0.127 |

37 | 0.4267 | 0.1103 | 0.127 |

38 | 0.4267 | 0.1103 | 0.127 |

39 | 0.4267 | 0.1103 | 0.127 |

40 | 0.4267 | 0.1103 | 0.127 |

41 | 0.4267 | 0.1103 | 0.127 |

42 | 0.4267 | 0.1103 | 0.127 |

43 | 0.4267 | 0.1103 | 0.127 |

44 | 0.4267 | 0.1103 | 0.127 |

45 | 0.4267 | 0.1103 | 0.127 |

46 | 0.4267 | 0.1103 | 0.127 |

47 | 0.4267 | 0.1103 | 0.127 |

48 | 0.4267 | 0.1103 | 0.127 |

49 | 0.0582 | 0.4703 | 0.2903 |

50 | 0.0194 | 0.5192 | 0.2962 |

51 | 0.0194 | 0.5192 | 0.2962 |

52 | 0.0194 | 0.5192 | 0.2962 |

53 | 0.0194 | 0.5192 | 0.2962 |

54 | 0.0194 | 0.5192 | 0.2962 |

55 | 0.0194 | 0.5192 | 0.2962 |

56 | 0.0194 | 0.5192 | 0.2962 |

57 | 0.0194 | 0.5192 | 0.2962 |

58 | 0.0194 | 0.5192 | 0.2962 |

59 | 0.0194 | 0.5192 | 0.2962 |

60 | 0.0194 | 0.5192 | 0.2962 |

61 | 0.0194 | 0.5192 | 0.2962 |

62 | 0.0194 | 0.5192 | 0.2962 |

63 | 0.0194 | 0.5192 | 0.2962 |

64 | 0.0194 | 0.5192 | 0.2962 |

65 | 0.0194 | 0.5192 | 0.2962 |

66 | 0.0194 | 0.5192 | 0.2962 |

67 | 0.0194 | 0.5192 | 0.2962 |

68 | 0.0194 | 0.5192 | 0.2962 |

69 | 0.0194 | 0.5192 | 0.2962 |

70 | 0.0194 | 0.5192 | 0.2962 |

71 | 0.0194 | 0.5192 | 0.2962 |

72 | 0.0194 | 0.5192 | 0.2962 |

73 | 0.0194 | 0.5192 | 0.2962 |

74 | 0.0194 | 0.5192 | 0.2962 |

75 | 0.0194 | 0.5192 | 0.2962 |

76 | 0.0194 | 0.5192 | 0.2962 |

77 | 0.0194 | 0.5192 | 0.2962 |

78 | 0.0194 | 0.5192 | 0.2962 |

79 | 0.0194 | 0.5192 | 0.2962 |

80 | 0.0194 | 0.5192 | 0.2962 |

81 | 0.0194 | 0.5192 | 0.2962 |

82 | 0.0194 | 0.5192 | 0.2962 |

83 | 0.0194 | 0.5192 | 0.2962 |

84 | 0.0194 | 0.5192 | 0.2962 |

85 | 0.0194 | 0.5192 | 0.2962 |

86 | 0.0194 | 0.5192 | 0.2962 |

87 | 0.0194 | 0.5192 | 0.2962 |

88 | 0.0194 | 0.5192 | 0.2962 |

89 | 0.0194 | 0.5192 | 0.2962 |

90 | 0.0194 | 0.5192 | 0.2962 |

91 | 0.0194 | 0.5192 | 0.2962 |

92 | 0.0194 | 0.5192 | 0.2962 |

93 | 0.0194 | 0.5192 | 0.2962 |

94 | 0.0194 | 0.5192 | 0.2962 |

95 | 0.0194 | 0.5192 | 0.2962 |

96 | 0.0194 | 0.5192 | 0.2962 |

97 | 0.0194 | 0.5192 | 0.2962 |

98 | 0.0194 | 0.5192 | 0.2962 |

99 | 0.0194 | 0.5192 | 0.2962 |

100 | 0.0194 | 0.5192 | 0.2962 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.5192

MAP on validation data: 0.2962

---------------------------------

Fold-5 model saved to: rn

Summary:

MAP | Train | Test

----------------------------------

Fold 1 | 0.4481 | 0.4

Fold 2 | 0.3891 | 0.6

Fold 3 | 0.089 | 0.134

Fold 4 | 0.5192 | 0.2

Fold 5 | 0.5192 | 0.3045

----------------------------------

Avg. | 0.3929 | 0.3277

----------------------------------

Total | | 0.3268

以下是對你提到的各個指標的解釋：

**1. % mis-ordered pairs**

這個指標表示在模型預測的配對中，有多少比例的配對是錯誤排序的。具體來說，這是指在所有應該相對於某一個基準（如真實標籤）進行排序的配對中，模型預測的排序與實際排序不一致的比例。較低的值表示模型的排序性能較好。

**2. MAP-T (Mean Average Precision - Training)**

MAP-T 是指在訓練數據上的平均精確度均值（Mean Average Precision）。這是一種評估模型在多標籤或多類別任務中的性能指標，計算方式是對每個查詢計算平均精確度，然後對所有查詢取平均。這個值越高，表示模型在訓練數據上的表現越好。

**3. MAP-V (Mean Average Precision - Validation)**

MAP-V 是指在驗證數據上的平均精確度均值。它的計算方式與 MAP-T 相同，但使用的是驗證集的數據。這個指標用於評估模型在未見數據上的泛化能力，通常用來檢查模型是否過擬合。

**4. MAP on training data: 0.4539**

這表示模型在訓練數據上的平均精確度均值為 0.4539。這是一個具體的數值，可以用來衡量模型在訓練過程中的表現。

**5. MAP on validation data: 0.4567**

這表示模型在驗證數據上的平均精確度均值為 0.4567。這個數值通常用來評估模型的泛化能力，較高的值意味著模型在未見數據上表現良好。

### 總結

* % mis-ordered pairs 指標用來評估模型的排序準確性。
* MAP-T 和 MAP-V 分別用來評估模型在訓練和驗證數據上的精確度。
* 這些指標有助於理解模型的性能以及其在不同數據集上的表現。

根據這個訓練結果來看，將Chart以RankNet來做訓練，並且分成5個fold分別進行訓練，每個fold的MAP指標的數值都平均有0.4到0.5的準確性，表示訓練過程的表示是良好的，而且用於驗證集的表現也是好的。最後的5個fold模型結果。

### 數據概覽

* **MAP (Mean Average Precision)**：這是一個評估模型性能的指標，越高表示模型的預測越準確。
* **Train** 和 **Test**：分別表示模型在訓練集和測試集上的表現。

### 各折疊結果

1. **Fold 1**：
   * 訓練 MAP: 0.4481
   * 測試 MAP: 0.4
   * 表現尚可，訓練集表現好於測試集。
2. **Fold 2**：
   * 訓練 MAP: 0.3891
   * 測試 MAP: 0.6
   * 測試集表現優於訓練集，可能因為測試集較容易或模型在某些情況下過擬合。
3. **Fold 3**：
   * 訓練 MAP: 0.089
   * 測試 MAP: 0.134
   * 兩者都很低，顯示模型在這一折的性能非常差，可能是數據問題或模型設定不當。
4. **Fold 4**：
   * 訓練 MAP: 0.5192
   * 測試 MAP: 0.2
   * 訓練集表現非常好，但測試集表現極差，這可能是過擬合的明顯跡象。
5. **Fold 5**：
   * 訓練 MAP: 0.5192
   * 測試 MAP: 0.3045
   * 訓練集表現良好，但測試集仍然表現不佳，顯示出模型可能在新數據上的泛化能力不足。

### 平均結果

* **Avg. Train MAP: 0.3929**
* **Avg. Test MAP: 0.3277**
* **Total Test MAP: 0.3268**

### 總結與解釋

* **整體表現**：模型在訓練集上表現相對較好，但在測試集上的表現普遍較差，顯示出模型可能存在過擬合的問題。
* **Fold 3 的低表現**：需要進一步檢查該折疊的數據質量和特徵選擇，因為這一折疊的表現非常差。
* **建議**：
  + 進行特徵選擇或工程，可能有助於提高模型的泛化能力。
  + 考慮調整模型參數或使用不同的模型架構。
  + 檢查數據集是否平衡，並考慮數據增強技術以提高模型的穩定性。

這些結果顯示出模型在不同折疊中的不一致性，這可能是進一步改進的機會。

ncyu@ncyu-virtual-machine:~/Ranklib$ java -jar RankLib-2.18.jar -train normalize/SBFL\_chart.txt -ranker 1 -kcv 5 -kcvmd no\_Chart\_result/ -kcvmn rn -metric2t MAP -metric2T MAP -tvs 0.8

Discard orig. features

Training data: normalize/SBFL\_chart.txt

Cross validation: 5 folds.

Train-Validation split: 0.8

Feature vector representation: Dense.

Ranking method: RankNet

Feature description file: Unspecified. All features will be used.

Train metric: MAP

Test metric: MAP

Feature normalization: No

Models directory: no\_Chart\_result/

Models' name: rn

[+] RankNet's Parameters:

No. of epochs: 100

No. of hidden layers: 1

No. of hidden nodes per layer: 10

Learning rate: 5.0E-5

Reading feature file [normalize/SBFL\_chart.txt]... [Done.]

(26 ranked lists, 416 entries read)

Creating data for 5 folds... [Done]

Train[0]= "10006" "10007" "10008" "10009" "10010" "10011" "10012" "10013" "10014" "10015" "10016" "10017" "10018" "10019" "10020" "10021" "10022"

Train[1]= "10001" "10002" "10003" "10004" "10005" "10011" "10012" "10013" "10014" "10015" "10016" "10017" "10018" "10019" "10020" "10021" "10022"

Train[2]= "10001" "10002" "10003" "10004" "10005" "10006" "10007" "10008" "10009" "10010" "10016" "10017" "10018" "10019" "10020" "10021" "10022"

Train[3]= "10001" "10002" "10003" "10004" "10005" "10006" "10007" "10008" "10009" "10010" "10011" "10012" "10013" "10014" "10015" "10021" "10022"

Train[4]= "10001" "10002" "10003" "10004" "10005" "10006" "10007" "10008" "10009" "10010" "10011" "10012" "10013" "10014" "10015" "10016" "10017"

Validate[0]= "10026" "10025" "10024" "10023"

Validate[1]= "10026" "10025" "10024" "10023"

Validate[2]= "10026" "10025" "10024" "10023"

Validate[3]= "10026" "10025" "10024" "10023"

Validate[4]= "10020" "10019" "10018"

Test[0]= "10001" "10002" "10003" "10004" "10005"

Test[1]= "10006" "10007" "10008" "10009" "10010"

Test[2]= "10011" "10012" "10013" "10014" "10015"

Test[3]= "10016" "10017" "10018" "10019" "10020"

Test[4]= "10021" "10022" "10023" "10024" "10025" "10026"

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.3822 | 0.1039 | 0.0907 |

2 | 0.3822 | 0.1039 | 0.0907 |

3 | 0.3822 | 0.1039 | 0.0907 |

4 | 0.3822 | 0.1039 | 0.0907 |

5 | 0.3822 | 0.1039 | 0.0907 |

6 | 0.3822 | 0.1039 | 0.0907 |

7 | 0.3822 | 0.1039 | 0.0907 |

8 | 0.3822 | 0.1039 | 0.0907 |

9 | 0.3389 | 0.1539 | 0.0907 |

10 | 0.2524 | 0.2158 | 0.245 |

11 | 0.0192 | 0.4416 | 0.4567 |

12 | 0.0192 | 0.4416 | 0.4567 |

13 | 0.0192 | 0.4416 | 0.4567 |

14 | 0.0192 | 0.4416 | 0.4567 |

15 | 0.0192 | 0.4416 | 0.4567 |

16 | 0.0192 | 0.4416 | 0.4567 |

17 | 0.0192 | 0.4416 | 0.4567 |

18 | 0.0192 | 0.4416 | 0.4567 |

19 | 0.0192 | 0.4416 | 0.4567 |

20 | 0.0192 | 0.4416 | 0.4567 |

21 | 0.0192 | 0.4416 | 0.4567 |

22 | 0.0192 | 0.4416 | 0.4567 |

23 | 0.0192 | 0.4416 | 0.4567 |

24 | 0.0192 | 0.4416 | 0.4567 |

25 | 0.0192 | 0.4525 | 0.4567 |

26 | 0.0192 | 0.4525 | 0.4567 |

27 | 0.0192 | 0.4525 | 0.4567 |

28 | 0.0192 | 0.4525 | 0.4567 |

29 | 0.0192 | 0.4525 | 0.4567 |

30 | 0.0192 | 0.4525 | 0.4567 |

31 | 0.0192 | 0.4525 | 0.4567 |

32 | 0.0192 | 0.4525 | 0.4567 |

33 | 0.0192 | 0.4525 | 0.4567 |

34 | 0.0192 | 0.4525 | 0.4567 |

35 | 0.0192 | 0.4525 | 0.4567 |

36 | 0.0192 | 0.464 | 0.4567 |

37 | 0.0192 | 0.464 | 0.4567 |

38 | 0.0192 | 0.464 | 0.4567 |

39 | 0.0192 | 0.464 | 0.4567 |

40 | 0.0192 | 0.464 | 0.4567 |

41 | 0.0 | 0.4706 | 0.4567 |

42 | 0.0 | 0.4706 | 0.4567 |

43 | 0.0 | 0.4706 | 0.4567 |

44 | 0.0 | 0.4706 | 0.4567 |

45 | 0.0 | 0.4706 | 0.4567 |

46 | 0.0 | 0.4706 | 0.4567 |

47 | 0.0 | 0.4706 | 0.4567 |

48 | 0.0 | 0.4706 | 0.4567 |

49 | 0.0 | 0.4706 | 0.4567 |

50 | 0.0 | 0.4706 | 0.4567 |

51 | 0.0 | 0.4706 | 0.4567 |

52 | 0.0 | 0.4706 | 0.4567 |

53 | 0.0 | 0.4706 | 0.4567 |

54 | 0.0 | 0.4706 | 0.4567 |

55 | 0.0 | 0.4706 | 0.4567 |

56 | 0.0 | 0.4706 | 0.4567 |

57 | 0.0 | 0.4706 | 0.4567 |

58 | 0.0 | 0.4706 | 0.4567 |

59 | 0.0 | 0.4706 | 0.4567 |

60 | 0.0 | 0.4706 | 0.4567 |

61 | 0.0 | 0.4706 | 0.4567 |

62 | 0.0 | 0.4706 | 0.4567 |

63 | 0.0 | 0.4706 | 0.4567 |

64 | 0.0 | 0.4706 | 0.4567 |

65 | 0.0 | 0.4706 | 0.4567 |

66 | 0.0 | 0.4706 | 0.4567 |

67 | 0.0 | 0.4706 | 0.4567 |

68 | 0.0 | 0.4706 | 0.4567 |

69 | 0.0 | 0.4706 | 0.4567 |

70 | 0.0 | 0.4706 | 0.4567 |

71 | 0.0 | 0.4706 | 0.4567 |

72 | 0.0 | 0.4706 | 0.4567 |

73 | 0.0 | 0.4706 | 0.4567 |

74 | 0.0 | 0.4706 | 0.4567 |

75 | 0.0 | 0.4706 | 0.4567 |

76 | 0.0 | 0.4706 | 0.4567 |

77 | 0.0 | 0.4706 | 0.4567 |

78 | 0.0 | 0.4706 | 0.4567 |

79 | 0.0 | 0.4706 | 0.4567 |

80 | 0.0 | 0.4706 | 0.4567 |

81 | 0.0 | 0.4706 | 0.4567 |

82 | 0.0 | 0.4706 | 0.4567 |

83 | 0.0 | 0.4706 | 0.4567 |

84 | 0.0 | 0.4706 | 0.4567 |

85 | 0.0 | 0.4706 | 0.4567 |

86 | 0.0 | 0.4706 | 0.4567 |

87 | 0.0 | 0.4706 | 0.4567 |

88 | 0.0 | 0.4706 | 0.4567 |

89 | 0.0 | 0.4706 | 0.4567 |

90 | 0.0 | 0.4706 | 0.4567 |

91 | 0.0 | 0.4706 | 0.4567 |

92 | 0.0 | 0.4706 | 0.4567 |

93 | 0.0 | 0.4706 | 0.4567 |

94 | 0.0 | 0.4706 | 0.4567 |

95 | 0.0 | 0.4706 | 0.4567 |

96 | 0.0 | 0.4706 | 0.4567 |

97 | 0.0 | 0.4706 | 0.4567 |

98 | 0.0 | 0.4706 | 0.4567 |

99 | 0.0 | 0.4706 | 0.4567 |

100 | 0.0 | 0.4706 | 0.4567 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.4416

MAP on validation data: 0.4567

---------------------------------

Fold-1 model saved to: rn

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.0109 | 0.3768 | 0.4567 |

2 | 0.0109 | 0.3768 | 0.4567 |

3 | 0.0109 | 0.3768 | 0.4567 |

4 | 0.0109 | 0.3768 | 0.4567 |

5 | 0.0109 | 0.3768 | 0.4567 |

6 | 0.0109 | 0.3768 | 0.4567 |

7 | 0.0109 | 0.3768 | 0.4567 |

8 | 0.0109 | 0.3768 | 0.4567 |

9 | 0.0109 | 0.3768 | 0.4567 |

10 | 0.0109 | 0.3768 | 0.4567 |

11 | 0.0109 | 0.3768 | 0.4567 |

12 | 0.0109 | 0.3768 | 0.4567 |

13 | 0.0109 | 0.3768 | 0.4567 |

14 | 0.0109 | 0.3768 | 0.4567 |

15 | 0.0109 | 0.3768 | 0.4567 |

16 | 0.0109 | 0.3768 | 0.4567 |

17 | 0.0109 | 0.3768 | 0.4567 |

18 | 0.0109 | 0.3768 | 0.4567 |

19 | 0.0109 | 0.3768 | 0.4567 |

20 | 0.0109 | 0.3768 | 0.4567 |

21 | 0.0109 | 0.3768 | 0.4567 |

22 | 0.0109 | 0.3768 | 0.4567 |

23 | 0.0109 | 0.3768 | 0.4567 |

24 | 0.0109 | 0.3768 | 0.4567 |

25 | 0.0109 | 0.3768 | 0.4567 |

26 | 0.0109 | 0.3768 | 0.4567 |

27 | 0.0109 | 0.3768 | 0.4567 |

28 | 0.0109 | 0.3768 | 0.4567 |

29 | 0.0109 | 0.3768 | 0.4567 |

30 | 0.0109 | 0.3768 | 0.4567 |

31 | 0.0109 | 0.3768 | 0.4567 |

32 | 0.0109 | 0.3768 | 0.4567 |

33 | 0.0109 | 0.3768 | 0.4567 |

34 | 0.0109 | 0.3768 | 0.4567 |

35 | 0.0109 | 0.3768 | 0.4567 |

36 | 0.0109 | 0.3768 | 0.4567 |

37 | 0.0109 | 0.3768 | 0.4567 |

38 | 0.0109 | 0.3768 | 0.4567 |

39 | 0.0109 | 0.3768 | 0.4567 |

40 | 0.0109 | 0.3768 | 0.4567 |

41 | 0.0109 | 0.3768 | 0.4567 |

42 | 0.0109 | 0.3768 | 0.4567 |

43 | 0.0109 | 0.3768 | 0.4567 |

44 | 0.0109 | 0.3768 | 0.4567 |

45 | 0.0109 | 0.3768 | 0.4567 |

46 | 0.0109 | 0.3768 | 0.4567 |

47 | 0.0109 | 0.3768 | 0.4567 |

48 | 0.0109 | 0.3768 | 0.4567 |

49 | 0.0109 | 0.3768 | 0.4567 |

50 | 0.0109 | 0.3768 | 0.4567 |

51 | 0.0109 | 0.3768 | 0.4567 |

52 | 0.0109 | 0.3768 | 0.4567 |

53 | 0.0109 | 0.3768 | 0.4567 |

54 | 0.0109 | 0.3768 | 0.4567 |

55 | 0.0109 | 0.3768 | 0.4567 |

56 | 0.0109 | 0.3768 | 0.4567 |

57 | 0.0109 | 0.3768 | 0.4567 |

58 | 0.0109 | 0.3768 | 0.4567 |

59 | 0.0109 | 0.3878 | 0.4567 |

60 | 0.0109 | 0.3878 | 0.4567 |

61 | 0.0109 | 0.3878 | 0.4567 |

62 | 0.0109 | 0.3878 | 0.4567 |

63 | 0.0109 | 0.3878 | 0.4567 |

64 | 0.0109 | 0.3878 | 0.4567 |

65 | 0.0109 | 0.3878 | 0.4567 |

66 | 0.0109 | 0.3878 | 0.4567 |

67 | 0.0109 | 0.3878 | 0.4567 |

68 | 0.0109 | 0.3878 | 0.4567 |

69 | 0.0109 | 0.3878 | 0.4567 |

70 | 0.0109 | 0.3878 | 0.4567 |

71 | 0.0109 | 0.3878 | 0.4567 |

72 | 0.0109 | 0.3878 | 0.4567 |

73 | 0.0109 | 0.3878 | 0.4567 |

74 | 0.0109 | 0.3878 | 0.4567 |

75 | 0.0109 | 0.3878 | 0.4567 |

76 | 0.0109 | 0.3878 | 0.4567 |

77 | 0.0109 | 0.3878 | 0.4567 |

78 | 0.0109 | 0.3878 | 0.4567 |

79 | 0.0109 | 0.3878 | 0.4567 |

80 | 0.0109 | 0.3878 | 0.4567 |

81 | 0.0109 | 0.3878 | 0.4567 |

82 | 0.0109 | 0.3878 | 0.4567 |

83 | 0.0109 | 0.3878 | 0.4567 |

84 | 0.0109 | 0.3878 | 0.4567 |

85 | 0.0109 | 0.3878 | 0.4567 |

86 | 0.0109 | 0.3878 | 0.4567 |

87 | 0.0109 | 0.3878 | 0.4567 |

88 | 0.0109 | 0.3878 | 0.4567 |

89 | 0.0109 | 0.3878 | 0.4567 |

90 | 0.0109 | 0.3878 | 0.4567 |

91 | 0.0109 | 0.3878 | 0.4567 |

92 | 0.0109 | 0.3878 | 0.4567 |

93 | 0.0109 | 0.3878 | 0.4567 |

94 | 0.0109 | 0.3878 | 0.4567 |

95 | 0.0109 | 0.3878 | 0.4567 |

96 | 0.0109 | 0.3878 | 0.4567 |

97 | 0.0109 | 0.3878 | 0.4567 |

98 | 0.0109 | 0.3878 | 0.4567 |

99 | 0.0109 | 0.3878 | 0.4567 |

100 | 0.0109 | 0.3878 | 0.4567 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.3768

MAP on validation data: 0.4567

---------------------------------

Fold-2 model saved to: rn

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.3988 | 0.089 | 0.0837 |

2 | 0.3988 | 0.089 | 0.0837 |

3 | 0.3988 | 0.089 | 0.0837 |

4 | 0.3988 | 0.089 | 0.0837 |

5 | 0.3988 | 0.089 | 0.0837 |

6 | 0.3988 | 0.089 | 0.0837 |

7 | 0.3988 | 0.089 | 0.0837 |

8 | 0.3988 | 0.089 | 0.0837 |

9 | 0.3988 | 0.089 | 0.0837 |

10 | 0.3988 | 0.089 | 0.0837 |

11 | 0.3988 | 0.089 | 0.0837 |

12 | 0.3988 | 0.089 | 0.0837 |

13 | 0.3988 | 0.089 | 0.0837 |

14 | 0.3988 | 0.089 | 0.0837 |

15 | 0.3988 | 0.089 | 0.0837 |

16 | 0.3988 | 0.089 | 0.0837 |

17 | 0.3988 | 0.089 | 0.0837 |

18 | 0.3988 | 0.089 | 0.0837 |

19 | 0.3988 | 0.089 | 0.0837 |

20 | 0.3988 | 0.089 | 0.0837 |

21 | 0.3988 | 0.089 | 0.0837 |

22 | 0.3988 | 0.089 | 0.0837 |

23 | 0.3988 | 0.089 | 0.0837 |

24 | 0.3988 | 0.089 | 0.0837 |

25 | 0.3988 | 0.089 | 0.0837 |

26 | 0.3988 | 0.089 | 0.0837 |

27 | 0.3988 | 0.089 | 0.0837 |

28 | 0.3988 | 0.089 | 0.0837 |

29 | 0.3988 | 0.089 | 0.0837 |

30 | 0.3988 | 0.089 | 0.0837 |

31 | 0.3988 | 0.089 | 0.0837 |

32 | 0.3988 | 0.089 | 0.0837 |

33 | 0.3988 | 0.089 | 0.0837 |

34 | 0.3988 | 0.089 | 0.0837 |

35 | 0.3988 | 0.089 | 0.0837 |

36 | 0.3988 | 0.089 | 0.0837 |

37 | 0.3988 | 0.089 | 0.0837 |

38 | 0.3988 | 0.089 | 0.0837 |

39 | 0.3988 | 0.089 | 0.0837 |

40 | 0.3988 | 0.089 | 0.0837 |

41 | 0.3988 | 0.089 | 0.0837 |

42 | 0.3988 | 0.089 | 0.0837 |

43 | 0.3988 | 0.089 | 0.0837 |

44 | 0.3988 | 0.089 | 0.0837 |

45 | 0.3988 | 0.089 | 0.0837 |

46 | 0.3988 | 0.089 | 0.0837 |

47 | 0.3988 | 0.089 | 0.0837 |

48 | 0.3988 | 0.089 | 0.0837 |

49 | 0.3988 | 0.089 | 0.0837 |

50 | 0.3988 | 0.089 | 0.0837 |

51 | 0.3988 | 0.089 | 0.0837 |

52 | 0.3988 | 0.089 | 0.0837 |

53 | 0.3988 | 0.089 | 0.0837 |

54 | 0.3988 | 0.089 | 0.0837 |

55 | 0.3988 | 0.089 | 0.0837 |

56 | 0.3988 | 0.089 | 0.0837 |

57 | 0.3988 | 0.089 | 0.0837 |

58 | 0.3988 | 0.089 | 0.0837 |

59 | 0.3988 | 0.089 | 0.0837 |

60 | 0.3988 | 0.089 | 0.0837 |

61 | 0.3988 | 0.089 | 0.0837 |

62 | 0.3988 | 0.089 | 0.0837 |

63 | 0.3988 | 0.089 | 0.0837 |

64 | 0.3988 | 0.089 | 0.0837 |

65 | 0.3988 | 0.089 | 0.0837 |

66 | 0.3988 | 0.089 | 0.0837 |

67 | 0.3988 | 0.089 | 0.0837 |

68 | 0.3988 | 0.089 | 0.0837 |

69 | 0.3988 | 0.089 | 0.0837 |

70 | 0.3988 | 0.089 | 0.0837 |

71 | 0.3988 | 0.089 | 0.0837 |

72 | 0.3988 | 0.089 | 0.0837 |

73 | 0.3988 | 0.089 | 0.0837 |

74 | 0.3988 | 0.089 | 0.0837 |

75 | 0.3988 | 0.089 | 0.0837 |

76 | 0.3988 | 0.089 | 0.0837 |

77 | 0.3988 | 0.089 | 0.0837 |

78 | 0.3988 | 0.089 | 0.0837 |

79 | 0.3988 | 0.089 | 0.0837 |

80 | 0.3988 | 0.089 | 0.0837 |

81 | 0.3988 | 0.089 | 0.0837 |

82 | 0.3988 | 0.089 | 0.0837 |

83 | 0.3988 | 0.089 | 0.0837 |

84 | 0.3988 | 0.089 | 0.0837 |

85 | 0.3988 | 0.089 | 0.0837 |

86 | 0.3988 | 0.089 | 0.0837 |

87 | 0.3988 | 0.089 | 0.0837 |

88 | 0.3988 | 0.089 | 0.0837 |

89 | 0.3988 | 0.089 | 0.0837 |

90 | 0.3988 | 0.089 | 0.0837 |

91 | 0.3988 | 0.089 | 0.0837 |

92 | 0.3988 | 0.089 | 0.0837 |

93 | 0.3988 | 0.089 | 0.0837 |

94 | 0.3988 | 0.089 | 0.0837 |

95 | 0.3988 | 0.089 | 0.0837 |

96 | 0.3988 | 0.089 | 0.0837 |

97 | 0.3988 | 0.089 | 0.0837 |

98 | 0.3988 | 0.089 | 0.0837 |

99 | 0.3988 | 0.089 | 0.0837 |

100 | 0.3988 | 0.089 | 0.0837 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.089

MAP on validation data: 0.0837

---------------------------------

Fold-3 model saved to: rn

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.4267 | 0.1103 | 0.0945 |

2 | 0.4267 | 0.1103 | 0.0945 |

3 | 0.4267 | 0.1103 | 0.0945 |

4 | 0.4267 | 0.1103 | 0.0945 |

5 | 0.4267 | 0.1103 | 0.0945 |

6 | 0.4267 | 0.1103 | 0.0945 |

7 | 0.4267 | 0.1103 | 0.0945 |

8 | 0.4267 | 0.1103 | 0.0945 |

9 | 0.4267 | 0.1103 | 0.0945 |

10 | 0.4267 | 0.1103 | 0.0945 |

11 | 0.4267 | 0.1103 | 0.0945 |

12 | 0.4267 | 0.1103 | 0.0945 |

13 | 0.4267 | 0.1103 | 0.0945 |

14 | 0.4267 | 0.1103 | 0.0945 |

15 | 0.4267 | 0.1103 | 0.0945 |

16 | 0.4267 | 0.1103 | 0.0945 |

17 | 0.4267 | 0.1103 | 0.0945 |

18 | 0.4267 | 0.1103 | 0.0945 |

19 | 0.4267 | 0.1103 | 0.0945 |

20 | 0.4267 | 0.1103 | 0.0945 |

21 | 0.4267 | 0.1103 | 0.0945 |

22 | 0.4267 | 0.1103 | 0.0945 |

23 | 0.4267 | 0.1103 | 0.0945 |

24 | 0.4267 | 0.1103 | 0.0945 |

25 | 0.4267 | 0.1103 | 0.0945 |

26 | 0.4267 | 0.1103 | 0.0945 |

27 | 0.4267 | 0.1103 | 0.0945 |

28 | 0.4267 | 0.1103 | 0.0945 |

29 | 0.4267 | 0.1103 | 0.0945 |

30 | 0.4267 | 0.1103 | 0.0945 |

31 | 0.4267 | 0.1103 | 0.0945 |

32 | 0.4267 | 0.1103 | 0.0945 |

33 | 0.4267 | 0.1103 | 0.0945 |

34 | 0.4267 | 0.1103 | 0.0945 |

35 | 0.4267 | 0.1103 | 0.0945 |

36 | 0.4267 | 0.1103 | 0.0945 |

37 | 0.4267 | 0.1103 | 0.0945 |

38 | 0.4267 | 0.1103 | 0.0945 |

39 | 0.4267 | 0.1103 | 0.0945 |

40 | 0.4267 | 0.1103 | 0.0945 |

41 | 0.4267 | 0.1103 | 0.0945 |

42 | 0.4267 | 0.1103 | 0.0945 |

43 | 0.4267 | 0.1103 | 0.0945 |

44 | 0.4267 | 0.1103 | 0.0945 |

45 | 0.4267 | 0.1103 | 0.0945 |

46 | 0.4267 | 0.1103 | 0.0945 |

47 | 0.4267 | 0.1103 | 0.0945 |

48 | 0.4267 | 0.1103 | 0.0945 |

49 | 0.4267 | 0.1103 | 0.0945 |

50 | 0.4267 | 0.1103 | 0.0945 |

51 | 0.4267 | 0.1103 | 0.0945 |

52 | 0.4267 | 0.1103 | 0.0945 |

53 | 0.4267 | 0.1103 | 0.0945 |

54 | 0.3534 | 0.1709 | 0.1495 |

55 | 0.2155 | 0.3424 | 0.1495 |

56 | 0.0194 | 0.5192 | 0.4045 |

57 | 0.0194 | 0.5192 | 0.4045 |

58 | 0.0194 | 0.5192 | 0.4045 |

59 | 0.0194 | 0.5192 | 0.4045 |

60 | 0.0194 | 0.5192 | 0.4045 |

61 | 0.0194 | 0.5192 | 0.4045 |

62 | 0.0194 | 0.5192 | 0.4045 |

63 | 0.0194 | 0.5192 | 0.4045 |

64 | 0.0194 | 0.5192 | 0.4045 |

65 | 0.0194 | 0.5192 | 0.4045 |

66 | 0.0194 | 0.5192 | 0.4045 |

67 | 0.0194 | 0.5192 | 0.4045 |

68 | 0.0194 | 0.5192 | 0.4045 |

69 | 0.0194 | 0.5192 | 0.4045 |

70 | 0.0194 | 0.5192 | 0.4045 |

71 | 0.0194 | 0.5192 | 0.4045 |

72 | 0.0194 | 0.5192 | 0.4045 |

73 | 0.0194 | 0.5192 | 0.4045 |

74 | 0.0194 | 0.5192 | 0.4045 |

75 | 0.0194 | 0.5192 | 0.4045 |

76 | 0.0194 | 0.5192 | 0.4045 |

77 | 0.0194 | 0.5192 | 0.4045 |

78 | 0.0194 | 0.5192 | 0.4045 |

79 | 0.0194 | 0.5192 | 0.4045 |

80 | 0.0194 | 0.5192 | 0.4045 |

81 | 0.0194 | 0.5192 | 0.4045 |

82 | 0.0194 | 0.5192 | 0.4045 |

83 | 0.0194 | 0.5192 | 0.4045 |

84 | 0.0194 | 0.5192 | 0.4045 |

85 | 0.0194 | 0.5192 | 0.4045 |

86 | 0.0194 | 0.5192 | 0.4045 |

87 | 0.0194 | 0.5192 | 0.4045 |

88 | 0.0194 | 0.5192 | 0.4045 |

89 | 0.0194 | 0.5192 | 0.4045 |

90 | 0.0194 | 0.5192 | 0.4045 |

91 | 0.0194 | 0.5192 | 0.4045 |

92 | 0.0194 | 0.5192 | 0.4045 |

93 | 0.0194 | 0.5192 | 0.4045 |

94 | 0.0194 | 0.5192 | 0.4045 |

95 | 0.0194 | 0.5192 | 0.4045 |

96 | 0.0194 | 0.5192 | 0.4045 |

97 | 0.0194 | 0.5192 | 0.4045 |

98 | 0.0194 | 0.5192 | 0.4045 |

99 | 0.0194 | 0.5192 | 0.4045 |

100 | 0.0194 | 0.5192 | 0.4045 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.5192

MAP on validation data: 0.4045

---------------------------------

Fold-4 model saved to: rn

Initializing... [Done]

-----------------------------------------

Training starts...

--------------------------------------------------

#epoch | % mis-ordered | MAP-T | MAP-V |

| pairs | | |

--------------------------------------------------

1 | 0.0194 | 0.5192 | 0.2962 |

2 | 0.0194 | 0.5192 | 0.2962 |

3 | 0.0194 | 0.5192 | 0.2962 |

4 | 0.0194 | 0.5192 | 0.2962 |

5 | 0.0194 | 0.5192 | 0.2962 |

6 | 0.0194 | 0.5192 | 0.2962 |

7 | 0.0194 | 0.5192 | 0.2962 |

8 | 0.0194 | 0.5192 | 0.2962 |

9 | 0.0194 | 0.5192 | 0.2962 |

10 | 0.0194 | 0.5192 | 0.2962 |

11 | 0.0194 | 0.5192 | 0.2962 |

12 | 0.0194 | 0.5192 | 0.2962 |

13 | 0.0194 | 0.5192 | 0.2962 |

14 | 0.0194 | 0.5192 | 0.2962 |

15 | 0.0194 | 0.5192 | 0.2962 |

16 | 0.0194 | 0.5192 | 0.2962 |

17 | 0.0194 | 0.5192 | 0.2962 |

18 | 0.0194 | 0.5192 | 0.2962 |

19 | 0.0194 | 0.5192 | 0.2962 |

20 | 0.0194 | 0.5192 | 0.2962 |

21 | 0.0194 | 0.5192 | 0.2962 |

22 | 0.0194 | 0.5192 | 0.2962 |

23 | 0.0194 | 0.5192 | 0.2962 |

24 | 0.0194 | 0.5192 | 0.2962 |

25 | 0.0194 | 0.5192 | 0.2962 |

26 | 0.0194 | 0.5192 | 0.2962 |

27 | 0.0194 | 0.5192 | 0.2962 |

28 | 0.0194 | 0.5192 | 0.2962 |

29 | 0.0194 | 0.5192 | 0.2962 |

30 | 0.0194 | 0.5192 | 0.2962 |

31 | 0.0194 | 0.5192 | 0.2962 |

32 | 0.0194 | 0.5192 | 0.2962 |

33 | 0.0194 | 0.5192 | 0.2962 |

34 | 0.0194 | 0.5192 | 0.2962 |

35 | 0.0194 | 0.5192 | 0.2962 |

36 | 0.0194 | 0.5192 | 0.2962 |

37 | 0.0194 | 0.5192 | 0.2962 |

38 | 0.0194 | 0.5192 | 0.2962 |

39 | 0.0194 | 0.5192 | 0.2962 |

40 | 0.0194 | 0.5192 | 0.2962 |

41 | 0.0194 | 0.5192 | 0.2962 |

42 | 0.0194 | 0.5192 | 0.2962 |

43 | 0.0194 | 0.5192 | 0.2962 |

44 | 0.0194 | 0.5192 | 0.2962 |

45 | 0.0194 | 0.5192 | 0.2962 |

46 | 0.0194 | 0.5192 | 0.2962 |

47 | 0.0194 | 0.5192 | 0.2962 |

48 | 0.0194 | 0.5192 | 0.2962 |

49 | 0.0194 | 0.5192 | 0.2962 |

50 | 0.0194 | 0.5192 | 0.2962 |

51 | 0.0194 | 0.5192 | 0.2962 |

52 | 0.0194 | 0.5192 | 0.2962 |

53 | 0.0194 | 0.5192 | 0.2962 |

54 | 0.0194 | 0.5192 | 0.2962 |

55 | 0.0194 | 0.5192 | 0.2962 |

56 | 0.0194 | 0.5192 | 0.2962 |

57 | 0.0194 | 0.5192 | 0.2962 |

58 | 0.0194 | 0.5192 | 0.2962 |

59 | 0.0194 | 0.5192 | 0.2962 |

60 | 0.0194 | 0.5192 | 0.2962 |

61 | 0.0194 | 0.5192 | 0.2962 |

62 | 0.0194 | 0.5192 | 0.2962 |

63 | 0.0194 | 0.5192 | 0.2962 |

64 | 0.0194 | 0.5192 | 0.2962 |

65 | 0.0194 | 0.5192 | 0.2962 |

66 | 0.0194 | 0.5192 | 0.2962 |

67 | 0.0194 | 0.5192 | 0.2962 |

68 | 0.0194 | 0.5192 | 0.2962 |

69 | 0.0194 | 0.5192 | 0.2962 |

70 | 0.0194 | 0.5192 | 0.2962 |

71 | 0.0194 | 0.5192 | 0.2962 |

72 | 0.0194 | 0.5192 | 0.2962 |

73 | 0.0194 | 0.5192 | 0.2962 |

74 | 0.0194 | 0.5192 | 0.2962 |

75 | 0.0194 | 0.5192 | 0.2962 |

76 | 0.0194 | 0.5192 | 0.2962 |

77 | 0.0194 | 0.5192 | 0.2962 |

78 | 0.0194 | 0.5192 | 0.2962 |

79 | 0.0194 | 0.5192 | 0.2962 |

80 | 0.0194 | 0.5192 | 0.2962 |

81 | 0.0194 | 0.5192 | 0.2962 |

82 | 0.0194 | 0.5192 | 0.2962 |

83 | 0.0194 | 0.5192 | 0.2962 |

84 | 0.0194 | 0.5192 | 0.2962 |

85 | 0.0194 | 0.5192 | 0.2962 |

86 | 0.0194 | 0.5192 | 0.2962 |

87 | 0.0194 | 0.5192 | 0.2962 |

88 | 0.0194 | 0.5192 | 0.2962 |

89 | 0.0194 | 0.5192 | 0.2962 |

90 | 0.0194 | 0.5192 | 0.2962 |

91 | 0.0194 | 0.5192 | 0.2962 |

92 | 0.0194 | 0.5192 | 0.2962 |

93 | 0.0194 | 0.5192 | 0.2962 |

94 | 0.0194 | 0.5192 | 0.2962 |

95 | 0.0194 | 0.5192 | 0.2962 |

96 | 0.0194 | 0.5192 | 0.2962 |

97 | 0.0194 | 0.5192 | 0.2962 |

98 | 0.0194 | 0.5192 | 0.2962 |

99 | 0.0194 | 0.5192 | 0.2962 |

100 | 0.0194 | 0.5192 | 0.2962 |

--------------------------------------------------

Finished sucessfully.

MAP on training data: 0.5192

MAP on validation data: 0.2962

---------------------------------

Fold-5 model saved to: rn

Summary:

MAP | Train | Test

----------------------------------

Fold 1 | 0.4416 | 0.4

Fold 2 | 0.3768 | 0.6

Fold 3 | 0.089 | 0.1351

Fold 4 | 0.5192 | 0.1777

Fold 5 | 0.5192 | 0.3333

----------------------------------

Avg. | 0.3892 | 0.3292

----------------------------------

Total | | 0.3294