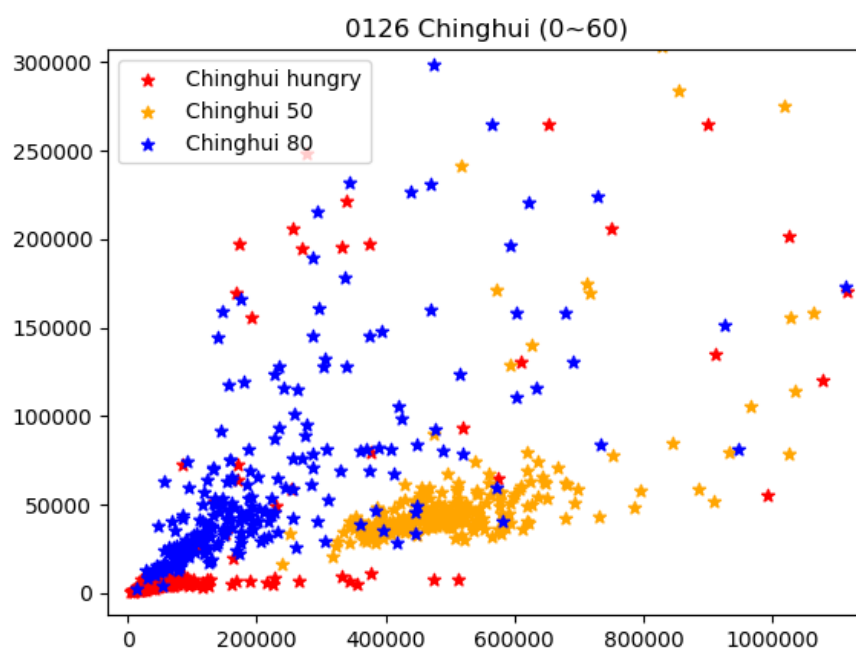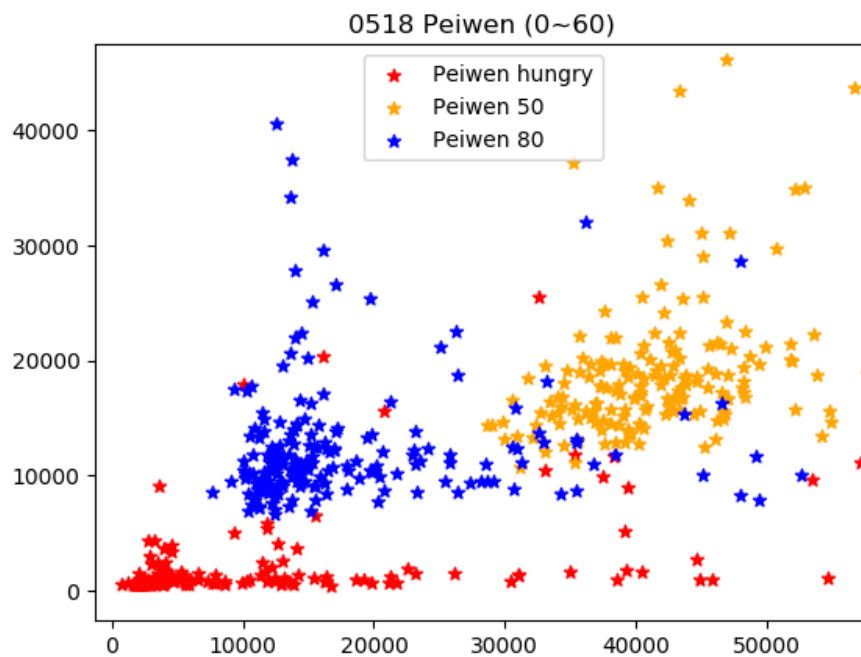個體差異

拿 0~60 秒當作 training data，Label 整段音檔，每 0.25 切一格，特徵為 STFT 九
維頻率段，可視化圖(X 軸為 344~689，Y 軸為 1033~1378)。
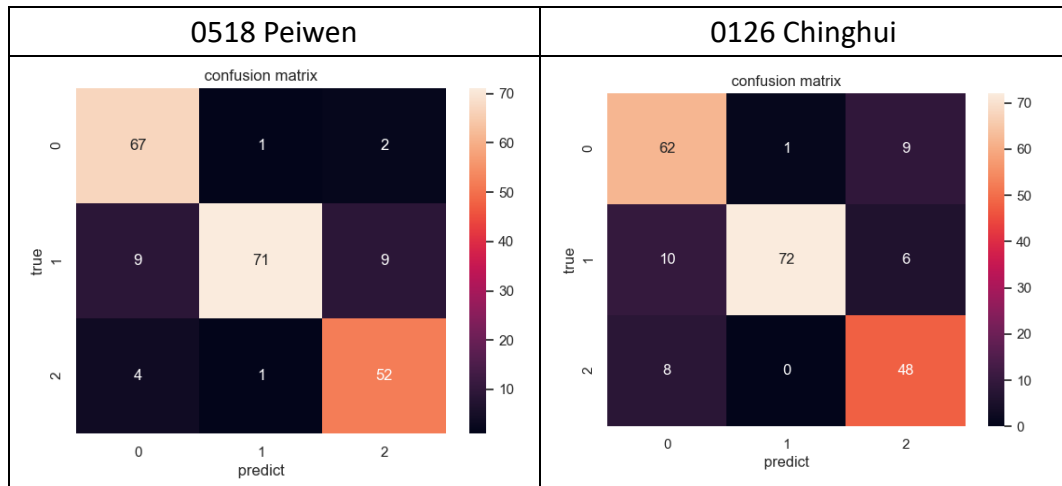PS.不是 fisher score 最高的兩維

Train Model

Use K Nearest Neighbors Classifier with n_neighbors = 8

1. Confusion Matrix

0518 Peiwen	0126 Chinghui

2. ROC Curve

0518 Peiwen	0126 Chinghui
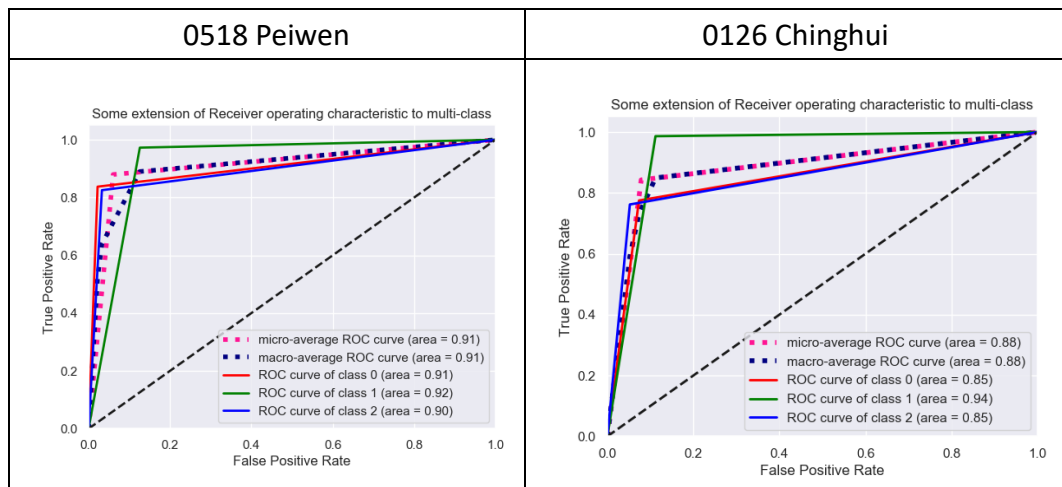
3. Accuracy

	0518 Peiwen	0126 Chinghui
5-fold Cross Validation	0.87	0.84
Precision	0.89	0.86
Recall	0.88	0.84
F1-score	0.88	0.85
Support	216	216

Demo Result

✓ 0: Hungry

✓ 1: 50 Percent Full

✓ 2: 80 Percent Full

✓ 3: Percentage of fullness ()

Ps. weight=(Hungry*(-4)+ 50 Percent Full *1+80 Percent Full *5)/ Hungry +50 Percent Full + 80 Percent Full)/10*100+40

1. Peiwen

result_hungry - DataFrame

Index	Peiwen_hungry	Peiwen_hungry_s2	Peiwen_hungry_s3	Peiwen_hungry_s4
0	102	98	111	102
1	11	16	7	11
2	7	6	2	7
3	9.8333	11.167	4.4167	9.8333

result_50 - DataFrame

Index	Peiwen_50	Peiwen_50_s2	Peiwen_50_s3	Peiwen_50_s4
0	3	0	2	0
1	115	120	118	120
2	2	0	0	0
3	49.417	50	49.167	50

result_80 - DataFrame

Index	Peiwen_80	Peiwen_80_s2	Peiwen_80_s3	Peiwen_80_s4
0	6	5	11	3
1	9	10	21	20
2	105	105	88	97
3	82.5	82.917	74.75	81.083

2. Chinghui

result_hungry - DataFrame

Index	Chinghui_hungry	Chinghui_hungry_s2	Chinghui_hungry_s3	Chinghui_hungry_s4
0	92	105	83	92
1	14	8	9	14
2	14	7	28	14
3	16.333	8.5833	24.75	16.333

result_50 - DataFrame

Index	Chinghui_50	Chinghui_50_s2	Chinghui_50_s3	Chinghui_50_s4
0	4	2	0	1
1	114	117	117	117
2	2	1	3	2
3	49	49.5	51	50.25

result_80 - DataFrame

Index	Chinghui_80	Chinghui_80_s2	Chinghui_80_s3	Chinghui_80_s4
0	6	10	11	2
1	15	16	30	40
2	99	94	79	78
3	80.5	77.167	71.75	75.167