

2024 /11 /26

21:00 - 22:30

11310CS460200 Group 23 Meeting Minutes

Topic	Progress Report
Place	Discord Voice Chat
Agenda	Discuss deadline for model training & progress report
In attendance	All present
Task Assigned	游松澤: collecting starting pitcher datasets 曾柏勳: collecting closer pitcher datasets 蕭以勝, 楊立慈, 賴允中: model design
Next meeting	<u>Date</u> : 12/3 <u>Time</u> : 8:00 ~ 9:00 pm <u>Objective</u> : Starting on phase4 <u>Location</u> : Discord Voice Chat

Meeting Summary:

1. We put the dataset into the model and get 53% accuracy.

```
Epoch 16/30
52/52 ————— 2s 27ms/step - accuracy: 0.4648 - loss: 1.4322 - val_accuracy: 0.5290 - val_
Epoch 16: early stopping
Restoring model weights from the end of the best epoch: 11.
Output is truncated. View as a scrollable element or open in a text editor. Adjust cell output settings...

train_loss, train_accuracy = model.evaluate(X_train, y_train, verbose=1)
print(f"training Loss: {train_loss}")
print(f"training Accuracy: {train_accuracy}")
val_loss, val_accuracy = model.evaluate(X_val, y_val, verbose=1)
print(f"valing Loss: {val_loss}")
print(f"valing Accuracy: {val_accuracy}")

... 52/52 ————— 0s 4ms/step - accuracy: 0.4910 - loss: 1.5671
training Loss: 1.5489451885223389
training Accuracy: 0.5042117834091187
10/10 ————— 0s 5ms/step - accuracy: 0.5247 - loss: 1.5483
valing Loss: 1.551474690437317
valing Accuracy: 0.5290102362632751

test_loss, test_accuracy = model.evaluate(X_test, y_test, verbose=1)
print(f"Testing Loss: {test_loss}")
print(f"Testing Accuracy: {test_accuracy}")

... 16/16 ————— 0s 5ms/step - accuracy: 0.4994 - loss: 1.5370
Testing Loss: 1.5520493984222412
Testing Accuracy: 0.4938775599002838
```

2. We try to make it better by adding more features and adding some embedding.
3. We collect the dataset more detailed to get more use.

game_type	stand	p_throws	home_team	away_team	type	hit_location	bb_type	balls	strikes	game_year	pfx_x	pfx_z	plate_x	plate_z	on_3b	on_2b	on_1b	outs_when_up	inning	inning_topbot	hc_x	hc_z
R	R	R	SEA	OAK	S	2.0		2	2	2024	0.86	-0.02	1.86	2.28				2	9	Bot		
R	R	R	SEA	OAK	B			1	2	2024	0.6	0.07	1.16	2.55				2	9	Bot		
R	R	R	SEA	OAK	S			1	1	2024	0.67	-0.02	1.38	2.33				2	9	Bot		
R	R	R	SEA	OAK	S			1	0	2024	0.93	-0.01	0.43	2.52				2	9	Bot		
R	R	R	SEA	OAK	B			0	0	2024	0.67	-0.04	-0.91	3.31				2	9	Bot		
R	L	R	SEA	OAK	S	2.0		2	2	2024	0.63	-0.07	1.66	0.45				1	9	Bot		
R	L	R	SEA	OAK	S			2	2	2024	0.82	-0.11	1.39	2.58				1	9	Bot		
R	L	R	SEA	OAK	S			2	1	2024	-0.97	1.31	0.48	2.35				1	9	Bot		
R	L	R	SEA	OAK	B			1	1	2024	-1.19	0.52	0.02	1.46				1	9	Bot		
R	L	R	SEA	OAK	S			1	0	2024	-0.84	1.47	-0.23	1.71				1	9	Bot		
R	L	R	SEA	OAK	B			0	0	2024	-1.03	1.57	-1.65	2.69				1	9	Bot		
R	L	R	SEA	OAK	X		line_drive	0	0	2024	-0.81	1.41	0.53	1.99			677594.0	1	9	Bot	186.5	57.
R	L	R	SEA	OAK	S	2.0		0	2	2024	0.54	-0.22	1.25	0.9			677594.0	0	9	Bot		
R	L	R	SEA	OAK	S			0	1	2024	0.94	-0.1	0.46	2.35			677594.0	0	9	Bot		
R	L	R	SEA	OAK	S			0	0	2024	-0.76	1.56	-0.13	3.41			677594.0	0	9	Bot		
R	R	R	SEA	OAK	X	7.0	line_drive	0	1	2024	-1.04	1.08	-0.76	3.08				0	9	Bot	90.59	72.
R	R	R	SEA	OAK	S			0	0	2024	-0.74	1.46	0.64	3.21				0	9	Bot		
R	L	R	OAK	TEX	X	5.0	ground_ball	1	2	2024	-0.93	1.36	0.02	2.32				2	9	Top	106.87	151
R	L	R	OAK	TEX	S			1	2	2024	-0.94	1.48	0.52	3.07				2	9	Top		
R	L	R	OAK	TEX	B			0	2	2024	0.99	0.1	-1.11	2.98				2	9	Top		

4. More detail we already discussed in discord so we didn't put it in here.

A group photo of the discussion session:

