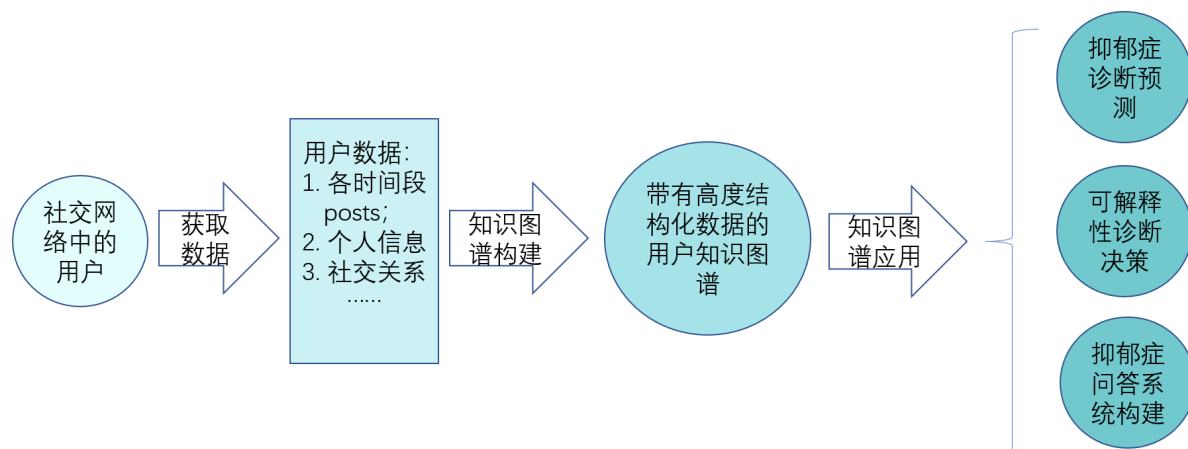
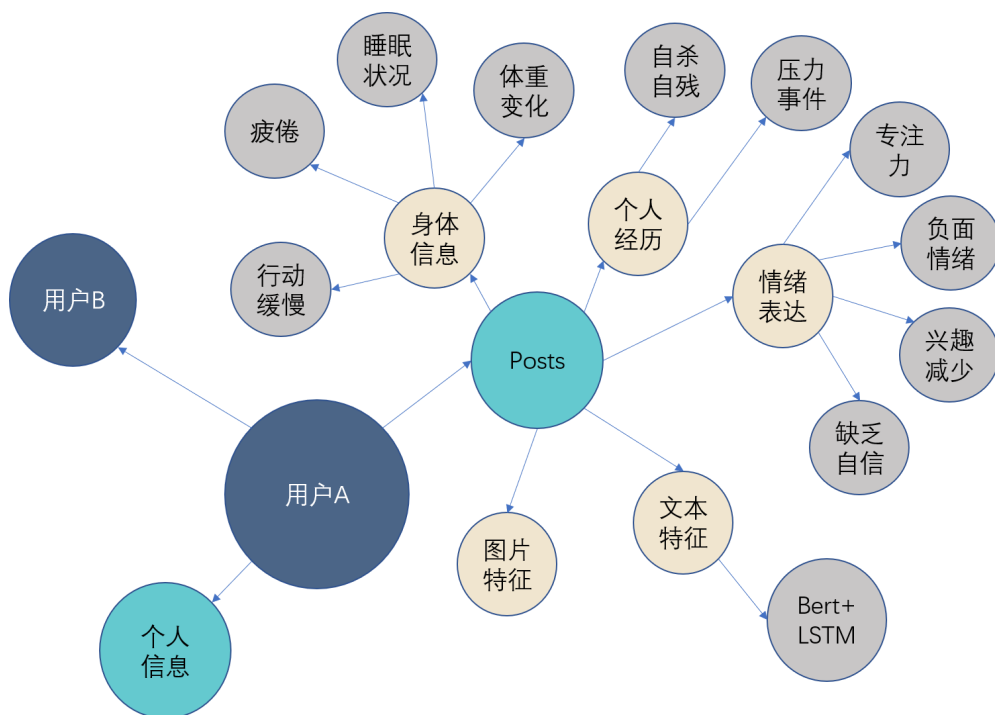


一、项目方案

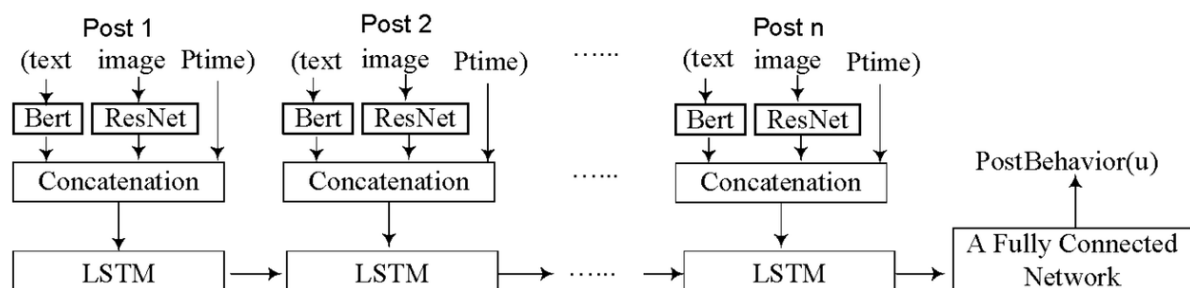
项目流程:



知识图谱结构:



文本特征模型抽取方法:



二、项目结果

知识图谱构建(D:抑郁症患者, C: 普通用户, A: 全体用户):

类别	症状	词数	平均词频D	平均词频C	平均词频A	平均得分D	平均得分C	平均得分A
身体信息	unenergetic	45	21.18	5.35	6.57	10.76	2.56	3.19
身体信息	slow-moving	49	33.46	12.06	13.71	23.77	8.74	9.89
身体信息	restless	41	16.38	5.03	5.9	7.07	2.24	2.61
身体信息	sleepy	25	25.17	8.97	10.21	13.59	5.26	5.59
身体信息	tired	39	44.41	11.85	14.36	25.92	6.61	8.09
个人经历	suicide	7	3.53	0.47	0.71	3.52	0.46	0.71
个人经历	stressful	36	47.62	13.18	15.84	26.86	7.09	8.61
情绪表达	distracted	9	1.89	0.31	0.43	1.49	0.25	0.34
情绪表达	interested	41	104.21	30.08	35.79	61.14	18.71	21.98
情绪表达	negative	100	4.44	2.21	2.38	4.44	2.21	2.38
情绪表达	unconfident	18	12.11	2.18	2.94	7.93	1.4	1.91

训练结果:

Con:Dep(train)	Con:Dep(val)	Feature Dim	Predictor	ACC	F1 Score	Recall	Precision	AUC
10:1	10:1	8	attention+CNN	0.9247	0.9125	0.7023	0.6873	0.6894
1:1	10:1	8	attention+CNN	0.85	0.87 / 0.71	0.85 / 0.65	0.90 / 0.73	0.7939
1:1	1:1	8	attention+CNN	0.75	0.76	0.77	0.76	0.7782
1:1	1:1	12	attention+CNN	0.78	0.78	0.78	0.78	0.7931
1:1	1:1	44	attention+CNN	0.78	0.77	0.78	0.77	0.7864
10:1	10:1	44	attention+CNN	0.87	0.89/0.68	0.87/0.77	0.92/0.65	0.8100

解释性预测:

针对每一项图谱中的内容设定0, 1, 2, 3三个指标表示程度

```

The user has a 79.35487032 % chance of suffering from depression
It can be inferred from the performance of the user's Post that the symptoms that may be included are:
symptom      degree
unenergetic   0
slow-moving   0
restless      0
sleepy        0
tired         0
suicide       1
stressful     1
distracted    1
interested    0
negative      1
unconfident   0
Among them, the post that best reflects his/her depression is:
("Thank you for this. I really am very optimistic about our relationship. I'm not moving in with her yet, and I told her yesterday that I want the house to be thoroughly cleaned before I'll even consider it.\n\nI'm not super experienced at being in relationships, but I think our communication is far better than you would expect in a four month old couple. And there's a lot of love between us. I feel so happy, safe, and loved with her. After all of the advice I've received here, I'm prepared for an uphill battle as far as cleanliness goes, but I'm very optimistic.",)

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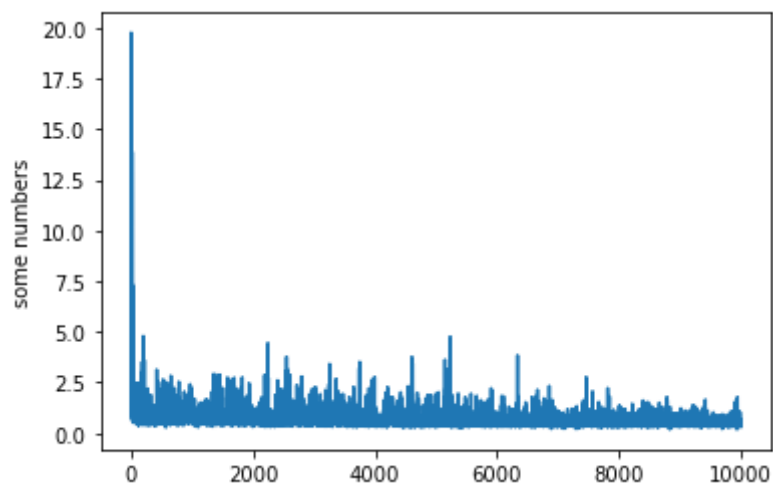
```

The user has a 100.0 % chance of suffering from depression
It can be inferred from the performance of the user's Post that the symptoms that may be included are:
symptom      degree
unenergetic   3
slow-moving   3
restless      3
sleepy        3
tired         3
suicide       1
stressful     3
distracted    3
interested    3
negative      3
unconfident   3
Among them, the post that best reflects his/her depression is:
('I struggle to cope with my chronic illness that causes me a lot of pain. I had a really good day yesterday and could say I was actually happy and content. But then at the end I got hit with a pain attack and had to take an extra big dose of Lyrica to keep it under control. Lyrica is a very heavy pain killer for nerve pain. I just woke up after what feels like a crash and decided to read some reddit to calm my head. This picture was the first I opened. Now I am in tears but do feel a lot better. I watched firefly long ago but think I am going to have a firefly marathon today.\n',)

```

训练图:

LOSS:



Performance:

