

```
1 ssh://sangsq@10.50.221.195:22/home/sangsq/anaconda3/bin/
2 python -u /home/sangsq/.pycharm_helpers/pydev/pydevconsole.py --mode=server
3
4 import sys; print('Python %s on %s' % (sys.version, sys.
5 platform))
6 sys.path.extend(['/home/sangsq/flower/PSEP', '/home/sangsq/
7 flower/PSEP'])
8
9 Python 3.7.3 (default, Mar 27 2019, 22:11:17)
10 Type 'copyright', 'credits' or 'license' for more
11 information
12 IPython 7.4.0 -- An enhanced Interactive Python. Type '?' for help.
13 PyDev console: using IPython 7.4.0
14
15 Python 3.7.3 (default, Mar 27 2019, 22:11:17)
16 [GCC 7.3.0] on linux
17 In[2]: runfile('/home/sangsq/flower/PSEP/model/fm-psep.py',
18 ' , wdir='/home/sangsq/flower/PSEP/model')
19 loading data
20 remove 0 isolated drugs: []
21 remove finished
22 963 polypharmacy side effects
23 data has been loaded
24 cuda
25 model training ...
26
27 0 loss:1.5865 auprc:0.4947 auroc:0.4997 ap@50:0.
28 4950
29 1 loss:1.5865 auprc:0.4973 auroc:0.5005 ap@50:0.
30 4992 time:112.9
31
32 2 loss:1.4586 auprc:0.4948 auroc:0.5010 ap@50:0.
33 4951
34 1 loss:1.4586 auprc:0.4978 auroc:0.5024 ap@50:0.
35 4998 time:109.6
36
37 2 loss:1.4210 auprc:0.4927 auroc:0.5022 ap@50:0.
38 4930
39 2 loss:1.4210 auprc:0.4957 auroc:0.5039 ap@50:0.
40 4977 time:109.6
41
42 3 loss:1.4037 auprc:0.4895 auroc:0.5040 ap@50:0.
43 4898
44 3 loss:1.4037 auprc:0.4919 auroc:0.5057 ap@50:0.
45 4939 time:109.3
46
47 4 loss:1.3923 auprc:0.4872 auroc:0.5056 ap@50:0.
48 4876
49 4 loss:1.3923 auprc:0.4898 auroc:0.5077 ap@50:0.
50 4918 time:110.1
```

35					
36	5	loss:1.3885	auprc:0.4858	auroc:0.5057	ap@50:0.
	4875				
37	5	loss:1.3885	auprc:0.4871	auroc:0.5062	ap@50:0.
	4906	time:108.4			
38					
39	6	loss:1.3876	auprc:0.4858	auroc:0.5049	ap@50:0.
	4891				
40	6	loss:1.3876	auprc:0.4870	auroc:0.5056	ap@50:0.
	4930	time:108.0			
41					
42	7	loss:1.3872	auprc:0.4862	auroc:0.5055	ap@50:0.
	4938				
43	7	loss:1.3872	auprc:0.4873	auroc:0.5063	ap@50:0.
	4985	time:107.4			
44					
45	8	loss:1.3862	auprc:0.4822	auroc:0.5074	ap@50:0.
	4981				
46	8	loss:1.3862	auprc:0.4820	auroc:0.5086	ap@50:0.
	5032	time:107.2			
47					
48	9	loss:1.3852	auprc:0.4675	auroc:0.5114	ap@50:0.
	5058				
49	9	loss:1.3852	auprc:0.4699	auroc:0.5118	ap@50:0.
	5061	time:105.6			
50					
51	10	loss:1.3845	auprc:0.4437	auroc:0.5161	ap@50:0.
	5125				
52	10	loss:1.3845	auprc:0.4439	auroc:0.5163	ap@50:0.
	5136	time:105.8			
53					
54	11	loss:1.3837	auprc:0.4345	auroc:0.5209	ap@50:0.
	5170				
55	11	loss:1.3837	auprc:0.4290	auroc:0.5214	ap@50:0.
	5207	time:106.2			
56					
57	12	loss:1.3822	auprc:0.4463	auroc:0.5262	ap@50:0.
	5163				
58	12	loss:1.3822	auprc:0.4453	auroc:0.5267	ap@50:0.
	5201	time:106.1			
59					
60	13	loss:1.3798	auprc:0.4774	auroc:0.5337	ap@50:0.
	5047				
61	13	loss:1.3798	auprc:0.4781	auroc:0.5351	ap@50:0.
	5085	time:107.6			
62					
63	14	loss:1.3764	auprc:0.4940	auroc:0.5457	ap@50:0.
	5086				
64	14	loss:1.3764	auprc:0.4954	auroc:0.5484	ap@50:0.
	5161	time:107.8			
65					

66	15	loss:1.3720	auprc:0.5013	auroc:0.5589	ap@50:0.
5282					
67	15	loss:1.3720	auprc:0.5055	auroc:0.5634	ap@50:0.
5352		time:108.3			
68					
69	16	loss:1.3660	auprc:0.5014	auroc:0.5736	ap@50:0.
5539					
70	16	loss:1.3660	auprc:0.5070	auroc:0.5802	ap@50:0.
5604		time:107.1			
71					
72	17	loss:1.3577	auprc:0.5104	auroc:0.5915	ap@50:0.
5749					
73	17	loss:1.3577	auprc:0.5199	auroc:0.5995	ap@50:0.
5806		time:107.7			
74					
75	18	loss:1.3472	auprc:0.5483	auroc:0.6143	ap@50:0.
5829					
76	18	loss:1.3472	auprc:0.5589	auroc:0.6241	ap@50:0.
5922		time:108.4			
77					
78	19	loss:1.3353	auprc:0.5782	auroc:0.6379	ap@50:0.
6031					
79	19	loss:1.3353	auprc:0.5872	auroc:0.6483	ap@50:0.
6142		time:108.5			
80					
81	20	loss:1.3205	auprc:0.5846	auroc:0.6570	ap@50:0.
6325					
82	20	loss:1.3205	auprc:0.5960	auroc:0.6686	ap@50:0.
6446		time:108.5			
83					
84	21	loss:1.3046	auprc:0.6050	auroc:0.6784	ap@50:0.
6553					
85	21	loss:1.3046	auprc:0.6161	auroc:0.6904	ap@50:0.
6670		time:107.6			
86					
87	22	loss:1.2889	auprc:0.6327	auroc:0.7018	ap@50:0.
6766					
88	22	loss:1.2889	auprc:0.6439	auroc:0.7134	ap@50:0.
6884		time:108.5			
89					
90	23	loss:1.2710	auprc:0.6409	auroc:0.7161	ap@50:0.
6919					
91	23	loss:1.2710	auprc:0.6508	auroc:0.7272	ap@50:0.
7025		time:107.2			
92					
93	24	loss:1.2545	auprc:0.6554	auroc:0.7303	ap@50:0.
7025					
94	24	loss:1.2545	auprc:0.6657	auroc:0.7415	ap@50:0.
7134		time:107.7			
95					
96	25	loss:1.2387	auprc:0.6761	auroc:0.7481	ap@50:0.

96	7187				
97	25	loss:1.2387	auprc:0.6882	auroc:0.7596	ap@50:0.
	7300	time:108.1			
98					
99	26	loss:1.2232	auprc:0.6872	auroc:0.7608	ap@50:0.
	7308				
100	26	loss:1.2232	auprc:0.6979	auroc:0.7720	ap@50:0.
	7429	time:108.3			
101					
102	27	loss:1.2091	auprc:0.6877	auroc:0.7697	ap@50:0.
	7406				
103	27	loss:1.2091	auprc:0.6981	auroc:0.7806	ap@50:0.
	7516	time:107.8			
104					
105	28	loss:1.1949	auprc:0.7043	auroc:0.7849	ap@50:0.
	7544				
106	28	loss:1.1949	auprc:0.7172	auroc:0.7957	ap@50:0.
	7646	time:107.3			
107					
108	29	loss:1.1812	auprc:0.7210	auroc:0.8003	ap@50:0.
	7679				
109	29	loss:1.1812	auprc:0.7341	auroc:0.8107	ap@50:0.
	7787	time:108.0			
110					
111	30	loss:1.1675	auprc:0.7244	auroc:0.8093	ap@50:0.
	7752				
112	30	loss:1.1675	auprc:0.7367	auroc:0.8186	ap@50:0.
	7853	time:107.3			
113					
114	31	loss:1.1545	auprc:0.7281	auroc:0.8194	ap@50:0.
	7870				
115	31	loss:1.1545	auprc:0.7393	auroc:0.8283	ap@50:0.
	7972	time:107.2			
116					
117	32	loss:1.1422	auprc:0.7436	auroc:0.8310	ap@50:0.
	7988				
118	32	loss:1.1422	auprc:0.7549	auroc:0.8396	ap@50:0.
	8087	time:106.9			
119					
120	33	loss:1.1306	auprc:0.7546	auroc:0.8398	ap@50:0.
	8061				
121	33	loss:1.1306	auprc:0.7678	auroc:0.8475	ap@50:0.
	8142	time:107.4			
122					
123	34	loss:1.1207	auprc:0.7646	auroc:0.8447	ap@50:0.
	8072				
124	34	loss:1.1207	auprc:0.7730	auroc:0.8525	ap@50:0.
	8165	time:108.3			
125					
126	35	loss:1.1118	auprc:0.7754	auroc:0.8517	ap@50:0.
	8125				

127	35	loss:1.1118 8214	auprc:0.7870 time:107.1	auroc:0.8594	ap@50:0.
128					
129	36	loss:1.1035 8198	auprc:0.7885	auroc:0.8600	ap@50:0.
130	36	loss:1.1035 8282	auprc:0.7990 time:106.8	auroc:0.8663	ap@50:0.
131					
132	37	loss:1.0960 8235	auprc:0.7946	auroc:0.8645	ap@50:0.
133	37	loss:1.0960 8303	auprc:0.8064 time:107.8	auroc:0.8700	ap@50:0.
134					
135	38	loss:1.0886 8249	auprc:0.8024	auroc:0.8676	ap@50:0.
136	38	loss:1.0886 8313	auprc:0.8121 time:106.8	auroc:0.8728	ap@50:0.
137					
138	39	loss:1.0821 8289	auprc:0.8087	auroc:0.8723	ap@50:0.
139	39	loss:1.0821 8355	auprc:0.8187 time:107.1	auroc:0.8774	ap@50:0.
140					
141	40	loss:1.0764 8326	auprc:0.8145	auroc:0.8765	ap@50:0.
142	40	loss:1.0764 8403	auprc:0.8234 time:107.8	auroc:0.8820	ap@50:0.
143					
144	41	loss:1.0707 8350	auprc:0.8213	auroc:0.8800	ap@50:0.
145	41	loss:1.0707 8408	auprc:0.8310 time:107.8	auroc:0.8842	ap@50:0.
146					
147	42	loss:1.0655 8374	auprc:0.8295	auroc:0.8825	ap@50:0.
148	42	loss:1.0655 8429	auprc:0.8374 time:107.3	auroc:0.8861	ap@50:0.
149					
150	43	loss:1.0596 8409	auprc:0.8357	auroc:0.8853	ap@50:0.
151	43	loss:1.0596 8457	auprc:0.8425 time:107.8	auroc:0.8882	ap@50:0.
152					
153	44	loss:1.0534 8423	auprc:0.8407	auroc:0.8870	ap@50:0.
154	44	loss:1.0534 8475	auprc:0.8472 time:108.2	auroc:0.8899	ap@50:0.
155					
156	45	loss:1.0463 8417	auprc:0.8411	auroc:0.8870	ap@50:0.
157	45	loss:1.0463	auprc:0.8476	auroc:0.8897	ap@50:0.

157	8469	time:108.6			
158					
159	46	loss:1.0386	auprc:0.8435	auroc:0.8886	ap@50:0.
	8434				
160	46	loss:1.0386	auprc:0.8490	auroc:0.8911	ap@50:0.
	8483	time:107.3			
161					
162	47	loss:1.0302	auprc:0.8475	auroc:0.8915	ap@50:0.
	8475				
163	47	loss:1.0302	auprc:0.8538	auroc:0.8945	ap@50:0.
	8535	time:108.3			
164					
165	48	loss:1.0211	auprc:0.8506	auroc:0.8939	ap@50:0.
	8508				
166	48	loss:1.0211	auprc:0.8561	auroc:0.8966	ap@50:0.
	8563	time:108.5			
167					
168	49	loss:1.0109	auprc:0.8547	auroc:0.8970	ap@50:0.
	8550				
169	49	loss:1.0109	auprc:0.8604	auroc:0.8997	ap@50:0.
	8611	time:109.1			
170					
171	50	loss:1.0006	auprc:0.8612	auroc:0.9012	ap@50:0.
	8615				
172	50	loss:1.0006	auprc:0.8660	auroc:0.9035	ap@50:0.
	8666	time:109.0			
173					
174	51	loss:0.9898	auprc:0.8636	auroc:0.9026	ap@50:0.
	8640				
175	51	loss:0.9898	auprc:0.8687	auroc:0.9050	ap@50:0.
	8693	time:108.3			
176					
177	52	loss:0.9783	auprc:0.8676	auroc:0.9049	ap@50:0.
	8679				
178	52	loss:0.9783	auprc:0.8720	auroc:0.9071	ap@50:0.
	8726	time:107.6			
179					
180	53	loss:0.9662	auprc:0.8708	auroc:0.9070	ap@50:0.
	8711				
181	53	loss:0.9662	auprc:0.8754	auroc:0.9091	ap@50:0.
	8760	time:108.1			
182					
183	54	loss:0.9540	auprc:0.8729	auroc:0.9079	ap@50:0.
	8732				
184	54	loss:0.9540	auprc:0.8776	auroc:0.9101	ap@50:0.
	8782	time:108.8			
185					
186	55	loss:0.9415	auprc:0.8773	auroc:0.9107	ap@50:0.
	8775				
187	55	loss:0.9415	auprc:0.8820	auroc:0.9129	ap@50:0.
	8825	time:108.8			

188					
189	56	loss:0.9286	auprc:0.8795	auroc:0.9117	ap@50:0.
	8798				
190	56	loss:0.9286	auprc:0.8838	auroc:0.9136	ap@50:0.
	8844	time:108.2			
191					
192	57	loss:0.9157	auprc:0.8845	auroc:0.9148	ap@50:0.
	8847				
193	57	loss:0.9157	auprc:0.8880	auroc:0.9164	ap@50:0.
	8885	time:108.3			
194					
195	58	loss:0.9022	auprc:0.8863	auroc:0.9155	ap@50:0.
	8865				
196	58	loss:0.9022	auprc:0.8901	auroc:0.9173	ap@50:0.
	8906	time:109.3			
197					
198	59	loss:0.8887	auprc:0.8915	auroc:0.9189	ap@50:0.
	8916				
199	59	loss:0.8887	auprc:0.8957	auroc:0.9207	ap@50:0.
	8961	time:109.6			
200					
201	60	loss:0.8752	auprc:0.8929	auroc:0.9189	ap@50:0.
	8930				
202	60	loss:0.8752	auprc:0.8974	auroc:0.9209	ap@50:0.
	8979	time:108.6			
203					
204	61	loss:0.8630	auprc:0.9015	auroc:0.9246	ap@50:0.
	9016				
205	61	loss:0.8630	auprc:0.9047	auroc:0.9259	ap@50:0.
	9050	time:109.1			
206					
207	62	loss:0.8539	auprc:0.8962	auroc:0.9195	ap@50:0.
	8962				
208	62	loss:0.8539	auprc:0.9004	auroc:0.9217	ap@50:0.
	9008	time:109.9			
209					
210	63	loss:0.8411	auprc:0.9095	auroc:0.9293	ap@50:0.
	9095				
211	63	loss:0.8411	auprc:0.9126	auroc:0.9307	ap@50:0.
	9129	time:109.3			
212					
213	64	loss:0.8200	auprc:0.9058	auroc:0.9261	ap@50:0.
	9058				
214	64	loss:0.8200	auprc:0.9091	auroc:0.9278	ap@50:0.
	9095	time:110.2			
215					
216	65	loss:0.8091	auprc:0.9064	auroc:0.9263	ap@50:0.
	9065				
217	65	loss:0.8091	auprc:0.9101	auroc:0.9282	ap@50:0.
	9104	time:108.8			
218					

219	66	loss:0.7978 9157	auprc:0.9157	auroc:0.9332	ap@50:0.
220	66	loss:0.7978 9190	auprc:0.9187 time:109.5	auroc:0.9347	ap@50:0.
221					
222	67	loss:0.7783 9146	auprc:0.9146	auroc:0.9322	ap@50:0.
223	67	loss:0.7783 9182	auprc:0.9180 time:110.0	auroc:0.9339	ap@50:0.
224					
225	68	loss:0.7689 9154	auprc:0.9153	auroc:0.9325	ap@50:0.
226	68	loss:0.7689 9194	auprc:0.9191 time:109.4	auroc:0.9345	ap@50:0.
227					
228	69	loss:0.7562 9226	auprc:0.9225	auroc:0.9379	ap@50:0.
229	69	loss:0.7562 9257	auprc:0.9255 time:110.7	auroc:0.9394	ap@50:0.
230					
231	70	loss:0.7396 9226	auprc:0.9225	auroc:0.9377	ap@50:0.
232	70	loss:0.7396 9259	auprc:0.9257 time:108.6	auroc:0.9393	ap@50:0.
233					
234	71	loss:0.7314 9231	auprc:0.9231	auroc:0.9379	ap@50:0.
235	71	loss:0.7314 9265	auprc:0.9263 time:110.4	auroc:0.9397	ap@50:0.
236					
237	72	loss:0.7200 9279	auprc:0.9279	auroc:0.9417	ap@50:0.
238	72	loss:0.7200 9307	auprc:0.9305 time:110.5	auroc:0.9431	ap@50:0.
239					
240	73	loss:0.7058 9283	auprc:0.9282	auroc:0.9419	ap@50:0.
241	73	loss:0.7058 9311	auprc:0.9309 time:109.6	auroc:0.9433	ap@50:0.
242					
243	74	loss:0.6985 9292	auprc:0.9291	auroc:0.9424	ap@50:0.
244	74	loss:0.6985 9321	auprc:0.9319 time:109.2	auroc:0.9440	ap@50:0.
245					
246	75	loss:0.6907 9324	auprc:0.9323	auroc:0.9451	ap@50:0.
247	75	loss:0.6907 9350	auprc:0.9348 time:109.8	auroc:0.9464	ap@50:0.
248					
249	76	loss:0.6793	auprc:0.9323	auroc:0.9449	ap@50:0.

249	9323				
250	76	loss:0.6793	auprc:0.9348	auroc:0.9463	ap@50:0.
	9350	time:110.1			
251					
252	77	loss:0.6701	auprc:0.9337	auroc:0.9462	ap@50:0.
	9337				
253	77	loss:0.6701	auprc:0.9362	auroc:0.9475	ap@50:0.
	9364	time:109.3			
254					
255	78	loss:0.6655	auprc:0.9353	auroc:0.9476	ap@50:0.
	9354				
256	78	loss:0.6655	auprc:0.9378	auroc:0.9488	ap@50:0.
	9380	time:108.7			
257					
258	79	loss:0.6598	auprc:0.9354	auroc:0.9475	ap@50:0.
	9354				
259	79	loss:0.6598	auprc:0.9377	auroc:0.9487	ap@50:0.
	9379	time:110.9			
260					
261	80	loss:0.6512	auprc:0.9369	auroc:0.9487	ap@50:0.
	9369				
262	80	loss:0.6512	auprc:0.9391	auroc:0.9499	ap@50:0.
	9393	time:108.7			
263					
264	81	loss:0.6454	auprc:0.9372	auroc:0.9491	ap@50:0.
	9372				
265	81	loss:0.6454	auprc:0.9396	auroc:0.9504	ap@50:0.
	9398	time:110.8			
266					
267	82	loss:0.6428	auprc:0.9376	auroc:0.9494	ap@50:0.
	9376				
268	82	loss:0.6428	auprc:0.9398	auroc:0.9505	ap@50:0.
	9400	time:110.1			
269					
270	83	loss:0.6392	auprc:0.9387	auroc:0.9504	ap@50:0.
	9387				
271	83	loss:0.6392	auprc:0.9408	auroc:0.9514	ap@50:0.
	9409	time:110.6			
272					
273	84	loss:0.6343	auprc:0.9385	auroc:0.9503	ap@50:0.
	9386				
274	84	loss:0.6343	auprc:0.9408	auroc:0.9514	ap@50:0.
	9409	time:109.8			
275					
276	85	loss:0.6299	auprc:0.9391	auroc:0.9509	ap@50:0.
	9391				
277	85	loss:0.6299	auprc:0.9413	auroc:0.9520	ap@50:0.
	9415	time:110.3			
278					
279	86	loss:0.6275	auprc:0.9397	auroc:0.9513	ap@50:0.
	9398				

280	86	loss:0.6275 9419	auprc:0.9417 time:109.8	auroc:0.9523	ap@50:0.
281					
282	87	loss:0.6259 9398	auprc:0.9398	auroc:0.9514	ap@50:0.
283	87	loss:0.6259 9420	auprc:0.9418 time:109.8	auroc:0.9524	ap@50:0.
284					
285	88	loss:0.6244 9402	auprc:0.9402	auroc:0.9518	ap@50:0.
286	88	loss:0.6244 9425	auprc:0.9423 time:109.2	auroc:0.9529	ap@50:0.
287					
288	89	loss:0.6208 9401	auprc:0.9401	auroc:0.9517	ap@50:0.
289	89	loss:0.6208 9425	auprc:0.9423 time:109.3	auroc:0.9529	ap@50:0.
290					
291	90	loss:0.6177 9404	auprc:0.9404	auroc:0.9521	ap@50:0.
292	90	loss:0.6177 9428	auprc:0.9426 time:109.9	auroc:0.9532	ap@50:0.
293					
294	91	loss:0.6165 9407	auprc:0.9407	auroc:0.9523	ap@50:0.
295	91	loss:0.6165 9430	auprc:0.9428 time:109.9	auroc:0.9534	ap@50:0.
296					
297	92	loss:0.6158 9407	auprc:0.9407	auroc:0.9524	ap@50:0.
298	92	loss:0.6158 9430	auprc:0.9428 time:109.3	auroc:0.9534	ap@50:0.
299					
300	93	loss:0.6139 9412	auprc:0.9412	auroc:0.9528	ap@50:0.
301	93	loss:0.6139 9433	auprc:0.9431 time:109.7	auroc:0.9537	ap@50:0.
302					
303	94	loss:0.6115 9411	auprc:0.9410	auroc:0.9527	ap@50:0.
304	94	loss:0.6115 9433	auprc:0.9431 time:108.7	auroc:0.9537	ap@50:0.
305					
306	95	loss:0.6093 9415	auprc:0.9415	auroc:0.9530	ap@50:0.
307	95	loss:0.6093 9435	auprc:0.9433 time:109.2	auroc:0.9539	ap@50:0.
308					
309	96	loss:0.6091 9414	auprc:0.9414	auroc:0.9530	ap@50:0.
310	96	loss:0.6091	auprc:0.9434	auroc:0.9540	ap@50:0.

```
310 9436    time:108.9
311
312 97    loss:0.6081    auprc:0.9415    auroc:0.9530    ap@50:0.
         9415
313 97    loss:0.6081    auprc:0.9435    auroc:0.9540    ap@50:0.
         9436    time:109.1
314
315 98    loss:0.6072    auprc:0.9418    auroc:0.9533    ap@50:0.
         9418
316 98    loss:0.6072    auprc:0.9437    auroc:0.9542    ap@50:0.
         9438    time:109.2
317
318 99    loss:0.6061    auprc:0.9417    auroc:0.9533    ap@50:0.
         9417
319 99    loss:0.6061    auprc:0.9437    auroc:0.9542    ap@50:0.
         9438    time:109.7
320
321
322 Process finished with exit code 0
323
```