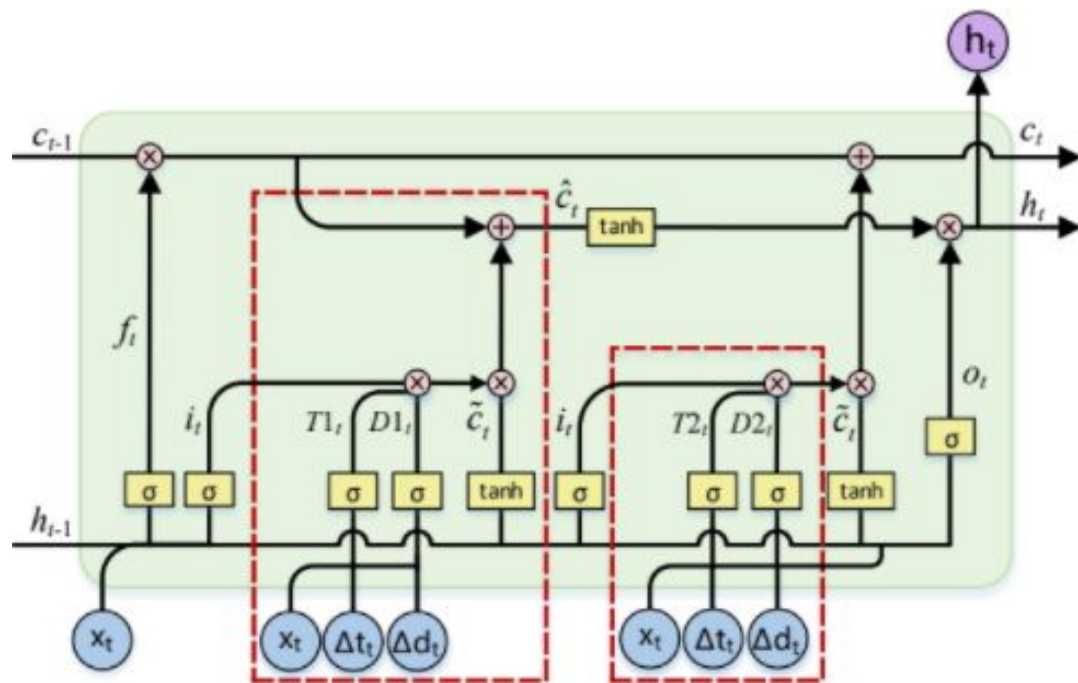# Where to Go Next: A Spatio-temporal LSTM model for Next POI Recommendation

題目

# dataset: brightkite

Brightkite

    #user:51,406

    #POI:772,967

    #Check-in: 4,747,288

| [user] | [check-in time] | [latitude] | [longitude] | [location id] |
|--------|-----------------|------------|-------------|---------------|
| 58186 | 2008-12-03T21:09:14Z | 39.633321 | -105.317215 | ee8b88dea22411 |
| 58186 | 2008-11-30T22:30:12Z | 39.633321 | -105.317215 | ee8b88dea22411 |
| 58186 | 2008-11-28T17:55:04Z | -13.158333 | -72.531389 | e6e86be2a22411 |
| 58186 | 2008-11-26T17:08:25Z | 39.633321 | -105.317215 | ee8b88dea22411 |
| 58187 | 2008-08-14T21:23:55Z | 41.257924 | -95.938081 | 4c2af967eb5df8 |
| 58187 | 2008-08-14T07:09:38Z | 41.257924 | -95.938081 | 4c2af967eb5df8 |
| 58187 | 2008-08-14T07:08:59Z | 41.295474 | -95.999814 | f3bb9560a2532e |
| 58187 | 2008-08-14T06:54:21Z | 41.295474 | -95.999814 | f3bb9560a2532e |
| 58188 | 2010-04-06T06:45:19Z | 46.521389 | 14.854444 | ddaa40aaa22411 |
| 58188 | 2008-12-30T15:30:08Z | 46.522621 | 14.849618 | 58e12bc0d67e11 |

https://snap.stanford.edu/data/loc-brightkite.html

# 實作: pytorch

- # of epochs    15
  1 epoch    20000 user check-ins
  (we make use of all users' behavioral histories for training)

- hidden size    128

- optimizer    Adam
  learning rate    0.0001 ~ 0.000005

# 實驗結果

| | paper | 實驗結果 |
|---|---|---|
| Acc@1 | 0.4389 | 0.1458 |
| Acc@5 | 0.4807 | 0.1837 |
| Acc@10 | 0.5035 | 0.2029 |



acc@1、acc@5、acc@10和acc@20