Li Song

✉ song200626@gmail.com · ☎ (+86) 188-115-53476 · OBJECTIVE: Algorithm Engineer

🎓 Education

Beijing University of Posts and Telecommunications (BUPT), Beijng, China   2016 – Present
Master student in Computer Science (CS), expected July 2019

North China Electric Power University (NCEPU), Beijing, China   2012 – 2016
B.S. in Computer Science (CS)

x₂Papers

1. Anomalous Trajectory Detection using Recurrent Neural Network. Li Song, Ruijia Wang, Ding Xiao, Xiaotian Han, Yanan Cai, Chuan Shi. (ADMA18, Accepted 23%, Best Paper)
2. Aspect-Level Deep Collaborative Filtering via Heterogeneous Information Networks. Xiaotian Han, Chuan Shi, Senzhang Wang, Philip Yu, Song Li. (IJCAI18, Accepted 20.5%)
3. Deep Collaborative Filtering with Multi-Aspect Information in Heterogeneous Networks. Chuan Shi, Xiaotian Han, Li Song, Xiao Wang, Senzhang Wang, Philip S. Yu. (Submitted to TKDE)
4. Embedding Geographic Information for Anomalous Trajectory Detection. Ding Xiao, Li Song, Ruijia Wang, Xiaotian Han, Yanan Cai, Chuan Shi. (Submitted to WWWJ)

👥 Experience

Map Matching   Apr. 2018 – Jun.2018

Brief introduction: Match trajectory points into the most probable road network.

1. We extracted the road networks from OpenStreetMap and established index for the road networks in order to accelerate the region query algorithm.
2. We designed a formula for emission probability and transition probability according to the candidate points.
3. We implemented map matching using hidden Markov model (HMM), and utilize the Viterbi algorithm which is based on dynamic programming to decode.

Recommendation System based on HIN   Dec. 2017 – Jan.2018

Brief introduction: We build a recommendation system based on heterogeneous information network.

1. We implemented some basic recommendation system, e.g. Collaborative filtering methods Item-KNN, MF.
2. We learned the latent factors of the users and items through the similarity matrix by a deep neural network.
3. We utilized the attention mechanism to fuse the latent factors extracted from HIN for recommendation.

Data Visualization   Jun. 2017 – Oct.2017

1. We designed some visual charts according to the specific electric power scenes with Echarts, Leaflet.
2. We implemented an interactive display system cooperated with national 863 project.

⚙ Skills

- Programming Languages: C == Python > C++ > Java
- Languages: CET-6(498)
- Machine Learning: Familar with machine learning model, such as LR, SVM, XGBoost, DNN.

♡ Honors and Awards

Bronze, Award on ACM/ICPC   Dec. 2014
School Scholarship   2012-2015
School Scholarship   2016-2018