Xiaodong Wu

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EDUCATION

Institute of Computing Technology (ICT) Chinese Academy of Sciences	2018.08- now

- Phd. candidate

National Chiao Tung University (Taiwan)	2016.02 - 2016.06

- Exchange student at Department of Computer Science   GPA: 89/100

University of Electronic Science and Technology of China	2014.09 - 2018.06

- Bachelor of Computer Science   GPA: 3.94/4.0
- Selected as a Member of Liren Class (33/303)

Research EXPERIENCE

Intern at Institute of Computing Technology (ICT)	2017.10 - 2018.08

Advised by Prof. Ruiping Wang. Mainly research on deep hashing.

Tried to improve retrieval performance by encoding more information and learning a better metric space. Implemented Deep Supervised Hashing (DSH) on Pytorch and tried several improvements.

Center for Future Media	2016.07 - 2017.10

Advised by Prof. Yang Yang. Research on event-based social networks.

Research Subjects

Deep Supervised Hashing for Multi-grained Retrieval System

- Core idea: Encode similarity information of multiple granularities into different hash code part. Using short hash codes to preserve similarity of coarse granularity and long hash codes to preserve similarity of fine granularity. Preparing to submit to AAAI 2019.

FashionAI Global Challenge—Key Points Detection of Apparel

- Proposed a cascade two-stage prediction model. Predict the rough area of key points in the first stage and improve accuracy by extracting local features for correction. Normalized Error (NE) = 16.53%.

AI Challenger Competition (Scene Classificaion)

- Proposed truncated loss to improve classification accuracy of hard samples.
- Final model is an ensembled model. Top 3 accuracy reaches 93.47. Team Ranking : 22/133

Efficient Image Retrieval Based on Deep Hashing Research

- Implement Deep Supervised Hashing (DSH) model using Pytorch.
- Research the effect of different loss including contrastive loss, triplet loss, focal loss and softmax loss.

Spatio-Temporal Topic Interest Diversion

- Study the spatio-temporal distribution of a specific topic in Event Based Social Networks
- Cut the map into grids and predict the number of users in each cell
- Model the data using matrix series, capture the spreading pattern using LSTM, RMSE=8004

TECHNICAL SKILLS

- Programming: Python, Java, Matlab, C/C++
- Deep learning framework: Pytorch Caffe

HONORS

National Scholarship	2015.10
Social Practice Outstanding Individual	2015.10
National Encouragement Scholarship	2016.10
Third Prize for Band C 2017 National English Competition for College Students	2017.05