

Wenting Ye

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EDUCATION

Carnegie Mellon University, School of Computer Science

Master in Computational Data Science (MCDS), Analytics track

Pittsburgh, PA

Aug. 2018 – Dec. 2019

- Finished Courses: Introduction to Computer System
- Ongoing Courses: Introduction to Machine Learning (Ph.D.), Introduction to Deep Learning, Machine Learning with Large Data Sets, Interactive Data Science, Data Science Seminar

Beijing University of Posts and Telecommunications (BUPT)

Bachelor of Engineering in Network Engineering, School of Computer Science

Beijing, China

Sep. 2014 – July 2018

- Major GPA: **92.74**/100; Overall GPA **91.86**/100; Rank: **2**/145
- Awards: National Scholarship for three times, Meritorious Winner in Interdisciplinary Contest In Modeling

PROFESSIONAL EXPERIENCE

Toutiao AI lab, Bytedance Inc.

Machine Learning Intern, Mentor: Dr. Changhu Wang

Beijing, China

Nov. 2017 – May 2018

ACTION PROPOSAL CONVOLUTIONAL NEURAL NETWORK (BACHELOR THESIS)

- Designed an action detection system based on Convolutional Neural Network (CNN) using MXNet, which incorporates the image feature extraction module by FPN, action proposal module, and video-level classification and bounding-box regression module with 3D residual CNN
- Modeled the problem of finding top K potential action trajectory as a maximum cost maximum flow problem, and implemented an efficient greedy algorithm for training action sample generation
- Evaluated the performance of our model on UCF-Sports dataset, advancing the result of (Hou et al., 2017) in ICCV by more than 2% with MAP 88.7

MULTILAYER PERCEPTRON WITH iDT FEATURE FOR VIDEO CLASSIFICATION

- Built a video classification pipeline in Python based on the improved Dense Trajectories (iDT) feature, including a multi-thread feature extraction module and a multilayer perceptron module for video classification
- Generated the feature of UCF101, which can be integrated into deep learning methods for exhaustive study

RESEARCH EXPERIENCE

Machine Learning Department, Carnegie Mellon University

Advisor: Prof. Eric P. Xing and Haohan Wang

Pittsburgh, PA

July 2017 – Sep. 2017

GENETIC ASSOCIATION DATABASE BASED ON DEEP REINFORCEMENT LEARNING

- Built a medical text dataset including published literature on PubMed, description of disease from Wikipedia, and different alias of genes and traits using official APIs and web crawlers
- Replaced the different synonyms of genes and traits with the same token using disjoint-set data structure
- Finished an academic manuscript, which has been submitted to *2019 Pacific Symposium on Biocomputing*

Language Technologies Institute, Carnegie Mellon University

Advisor: Haohan Wang

Pittsburgh, PA

Oct. 2016 – June 2017

A SPARSE GRAPH-STRUCTURED LASSO MIXED MODEL WITH CONFOUNDING CORRECTION

- Extended the ability of the linear mixed model to taking the dependency information between different traits into account based on the graph-fused lasso
- Wrote a manuscript reporting our work, which has been put on arXiv and prepared for submission to *BMC Bioinformatics*

SPARSE VARIABLE SELECTION ON HIGH DIMENSIONAL HETEROGENEOUS DATA

- Proposed a model for variable selection in the heterogeneous dataset with tree structured response
- Completed an academic paper, which has been put on arXiv and submitted to *2019 AAAI*

SKILLS

Programming Languages

Python, C/C++, Java, Pascal, JavaScript, Assembly, L^AT_EX, Bash, MATLAB

Frameworks and Tools

MXNet, PyTorch, NumPy, Django, Scrappy, Docker, Qt GUI, Git