

# Wenting Ye

cs.cmu.edu/~weye2

wentingye@cmu.edu

(412) 251-9177

## 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<sup>A</sup>T<sub>E</sub>X, Bash, MATLAB

### Frameworks and Tools

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