Wenting Ye

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Education

Carnegie Mellon University, School of Computer Science — Pittsburgh, PA
Master in Computational Data Science (MCDS), Analytics track — Aug. 2018 – Dec. 2019

- Finished Courses: Introduction to Computer System
- Ongoing Courses: Introduction to Machine Learning (PhD), Introduction to Deep Learning, Language and Statistics, Interactive Data Science, Data Science Seminar

Beijing University of Posts and Telecommunications (BUPT) — Beijing, China
Bachelor of Engineering in Network Engineering — Sep. 2014 – July 2018

- Major GPA: **92.74**/100; Overall GPA: **91.86**/100; Rank: **2**/145
- Awards: National Scholarship (2015 - 2018), Meritorious Winner in Interdisciplinary Contest In Modeling (2016)

Professional Experience

Bytedance Inc., Toutiao AI lab — Beijing, China
Machine Learning Intern, Mentor: Dr. Changhu Wang — 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 Feature Pyramid Network, 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

Carnegie Mellon University, Machine Learning Department — Pittsburgh, PA
Advisor: Prof. Eric P. Xing and Haohan Wang — 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
- Contributed to an academic manuscript, which has been accepted as *Proceedings of 2019 Pacific Symposium on Biocomputing*

Carnegie Mellon University, Language Technologies Institute — Pittsburgh, PA
Advisor: Haohan Wang — 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
- Contributed to an academic paper, which has been put on arXiv and submitted to *2019 AAAI*

Skills

Programming Languages: Python, C/C++, Java, Pascal, JavaScript, Assembly, LaTeX, Bash, MATLAB
Frameworks and Tools: MXNet, PyTorch, NumPy, Django, Scrapy, Docker, Qt GUI, Git