

Yao Lu

IEEE Student Member

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EDUCATION

Tongji University

B.Eng. in *Material Science and Engineering*

- GPA: 4.3/5.0

Shanghai, China

Sept.2012 - Jun.2017 (Expected)

University of Alberta

Dept. of Computing Science *Visiting Scholar*

- MITACS Scholar (co-funded by China Scholarship Council and Canada Government)
- Research Supervisor: Prof. Randy Goebel and Dr. Mi-Young Kim

Edmonton, Canada

June.2016 - September.2016

RESEARCH EXPERIENCES

Interest: Graph Analysis, Machine Learning, Natural Language Processing, Computer Vision, Deep Learning

Microsoft Academic Graph Mining

Collaborate with Dr.Jing Yuan, Microsoft and Prof. Randy Goebel, University of Alberta

Microsoft Research Asia

July.2016 - Present

- A project aimed at finding better method to evaluate young researchers in comparison to the h-index and citation number. We use Convolutional Neural Network for the feature extraction for modeling of academic quality. Apply graph embedding to quantify the social impact. We propose a joint learning framework capable of adding more context information for modeling
- The project has been presented at Microsoft Developer Conference
- Prepare for submission to SIGIR 2017

Spatial Association Gene Network Analysis

Directed by Prof. Tianwei Yu, Emory University

YuLab@Emory

April.2016 - Present

- A project aimed at integrating expression data with biological networks to find dynamic relationships which has computational hurdles to overcome. The goal of the project was to find vertices around which local expression consistency change significantly between clinical conditions.
- We proposed a new method called DNLC (Differential Network Local Consistency) which can extract significant vertices that are not detected using existing methods.
- Preparing for paper submission & CRAN R Package released

Topic Model Based Microblog Spammer Detection

Collaborate with Prof. Renxian Zhang, Tongji University

iLab&NLP@Tongji University

Oct.2015 - April.2016

- The project aimed at detecting smart spammers. This kind of spammers with profiles and tweets are difficult to identify. We proposed a Topic model based spammer detection approach to detect fake accounts in microblog platform. Our method outperform other methods.
- Co-authored paper accepted by NAACL-HLT Student Research Workshop(SRW), San Diego, 2016

Biologically Inspired Scene Recognition

Directed by Prof. Ye Luo, Tongji University

iLab@Tongji University

Mar.2016 - Present

- Using biologically plausible method of Visual Saliency and Gist Descriptor to recognize scenes
- Modified the feature extraction method proposed by Itti et al.
- New features with Linear SVM achieve 10% higher than previous method

PROJECTS AND COMPETITIONS

Beauty of Programming Competition

Microsoft Research Asia

May.2016

- One of the most famous programming competition in China
- Rank 3 of 1000 teams in the competition
- Project about Microsoft Academic Graph(MAG) search application

Microblog Social Trend Prediction Competition

Alibaba Inc. & Sina Inc.

Aug.2013 - Feb.2014

- Time series analysis to predict the popularity of Microblog posts
- Top 10% among total 2293 teams
- Develop the competition method to academic paper

Open Source Contribution

Social Network Fake Account Dataset

Open Dataset

Authors: **Yao Lu** and **Linqing Liu**

Oct.2016

- Kaggle Open dataset ([Dataset Link](#))
- The first public available dataset about detection of human-like fake account
- Paper published in NAACL 16

Differential network local consistency (DNLC)

R Package

Authors: **Yao Lu**, **Yusheng Ding**, **Linqing Liu** and **Tianwei Yu**

Dec.2016

- Project about detection local consistency
- Package available in R-CRAN ([Package Link](#))

PUBLICATIONS

In Progress

Yao Lu, **Yusheng Ding**, **Linqing Liu**, **Nicholas Jing Yuan**, **Mi-Young Kim** and **Randy Goebel** "Mining the Rising Star: A Joint Learning Framework for Academic Performance Modeling". Preparing for submission to ACM **SIGIR** 2017

Yao Lu, **Yusheng Ding**, **Linqing Liu**, **Jianwei Lu** and **Tianwei Yu** "Differential Network Local Consistency (DNLC): An Empirical Study of Gene Spatial Association" Preparing for submission to **BMC Bioinformatics**

Published

Linqing Liu, **Yao Lu**, **Ye Luo**, **Renxian Zhang**, **Jianwei Lu** and **Laurent Itti**, "Detecting Smart Spammers On Social Network: A Topic Model Approach." In NAACL-HLT 2016: Student Session, San Diego, USA.

Mi-Young Kim, **Ying Xu**, **Yao Lu** and **Randy Goebel**. "Legal Question Answering Using Paraphrasing and Entailment Analysis." JSAI International Symposium on Artificial Intelligence. Springer Berlin Heidelberg, 2016.

HONOURS & AWARDS

16' **Top 3 of Beauty of Programming Competition 2016**, Microsoft Inc. (Top 0.3%)

15' **First-class Scholarship**, Tongji University (Top 5%)

First Prize in National Mathematics Competition, Ministry of Education (Top 5%)

14' **First-class Scholarship**, Tongji University (Top 5%)

Outstanding Student Award, Tongji University (Top 2%)

First Prize in Physics Competition, Tongji University (Top 1%)

TECHNICAL STRENGTH

Programming Languages Skills

C/C++, Python, R, Matlab, L^AT_EX, Shell Script

Packages&Tools

Natural Language Processing, Deep Learning, Digital Image Processing
Tensorflow, NetworkX, OpenCV, NLTK, Sci-kit Learn, Git