

Linqing Liu

<http://likicode.com>

Room#308, School of Software Engineering
4800 Cao'an Road, Tongji University, Shanghai, China
+86 183-0192-1598 | likicode@gmail.com

EDUCATION

Tongji University

B.Eng. in *Software Engineering*

Shanghai, China

Sept.2013 - July.2017

- GPA: **90.7/100**
- Related Courses: *Data Mining & Analysis, Data Warehouse Technology, Object-Oriented Programming, Data Structures, Operating System, Compiler Principle, Computer Architecture, Software Engineering*

Internship

Queen's University

Research Assistant *SAIL (Software Analysis and Intelligence Lab)*

Kingston, Canada

June - Aug, 2016

- MITACS Scholar (co-funded by China Scholarship Council and Canadian Government)
- Research Supervisor: Prof. Ahmed E. Hassan and Dr. Cor-Paul Bezemer

Chinese Academy of Sciences (CAS)

Research Assistant *Shenzhen Institutes of Advanced Technology*

Shenzhen, China

July. - Dec, 2017

- Research Supervisor: Prof. Min Yang

PUBLICATIONS

1. **Linqing Liu**, Yao Lu, Min Yang, Qiang Qu, Jia Zhu and Hongyan Li "*Generative Adversarial Network for Abstractive Text Summarization*", The 30th AAAI Conference on Artificial Intelligence (**AAAI**, abstract), 2018
2. **Linqing Liu**, Yao Lu, Ye Luo, Renxian Zhang, Jianwei Lu and Laurent Itti, "*Detecting Smart Spammers On Social Network: A Topic Model Approach.*" (**NAACL-HLT**, Student Session), 2016
3. Min Yang, Wenting Tu, **Linqing Liu**, Xiaojun Chen, Jia Zhu and Qiang Qu, "*Semi-supervised Sentiment Classification by Combining Lexicon-based and Corpus-based Approaches*" (**Neurocomputing Journal**), 2017, submitted

HONOURS & AWARDS

- 16' **Google Anita Borg Memorial Scholarship**, Google Inc (only 9 recipients in mainland China)
- 16' **Top 3 of Beauty of Programming Competition 2016**, Microsoft and IEEE (Top 0.3%)
- 16' **NAACL Student Scholarship**, NAACL
- 15' **First Prize in China Mathematical Contest in Modeling**, Ministry of Education (Top 5%)
National Endeavor Scholarship, Tongji University (Top 5%)

RESEARCH EXPERIENCES

Research Interest: Natural Language Processing; the general areas of Machine Learning, including deep learning, reinforcement learning; Social Network Analysis

Generative Adversarial Network for Abstractive Text Summarization

Supervised by Prof. Min Yang, Chinese Academy of Sciences

SIAT@CAS

July 2017 - Now

- We proposed an adversarial process for abstractive text summarization, in which we simultaneously train a generative model G (as an agent of reinforcement learning, which takes the raw text as input and predicts the abstractive summarization) and a discriminative model D which attempts to distinguish the generated summary from the ground truth summary.
- Extensive experiments on the CNN/DailyMail Dataset shows that our model is able to generate more abstractive, readable and diverse summaries.

- The paper has been accepted by **AAAI** abstract. We are now extending it to a long paper.

Topic Model Based Microblog Spammer Detection

Collaborate with Prof. Ye Luo, Tongji University

iLab@Tongji

Oct.2015 - Apr.2016

- The project aimed at detecting smart spammers, whose posting behaviors resemble that of legitimate users. The detection method is proposed based on their different topic distribution patterns.
- We extracted topic-based features (GOSS and LOSS) for spammer detection, which outperform state-of-the-art methods. We also built the first public available dataset of human-like fake accounts on Chinese Weibo (microblog) platform.
- Paper accepted by **NAACL-HLT Student Session, San Diego, 2016**

Software Analysis and Intelligence research

Supervised by Prof. Ahmed E. Hassan of Queen's University

SAIL Lab@Queen's

June 2016 - Aug.2016

- Mined the different review patterns between physical and digital products. It informs the app developers to interpret the app reviews in the separate way of all other products.
- Performed the Wilcoxon test and calculate the Cliff's delta d effect size to quantify the difference on rating and text review features. Compared the proportion of "informative" user reviews by preprocessing the raw data of sentence-level granularity into well-structured format and applied a pre-trained classifier to filter out "non-informative" ones.
- Applied mixed effect models to explain incidence of rating and text review features

Spatial Association Gene Network Analysis

Supervised by Tianwei Yu, Emory University

YuLab@Emory

Jan.2016 - June 2016

- 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.
- Proposed a new method called DNLC (Differential Network Local Consistency) which can extract significant vertices that are not detected using existing methods.
- Developed **the DNLC R package which has been released on CRAN**

PROJECTS AND COMPETITIONS

Beauty of Programming Competition

Apr.2016 - June 2016

Microsoft Research Asia

- Proposed the SupernovaeRank algorithm to evaluate the future potential of researchers based on their performance at the initial stage of scientific careers. The algorithm calculates the academic rank of each researcher in every year based on the scholar graph. We adopted the Microsoft Academic Graph to build the dataset.
- The project was **presented at Microsoft Build Developer Conference**

Open Source Contribution

Differential network local consistency (DNLC)

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

R Package

Dec.2016

- Used Local Moran's I to detect differential network local consistency
- CRAN: <https://cran.r-project.org/web/packages/DNLC/index.html>

TECHNICAL STRENGTH

Programming Languages

Python, R, C/C++, Matlab, \LaTeX , HTML/CSS, Javascript

Platforms

Linux, Web, OS X(Unix)

Version Control

Git, SVN

Packages&Tools

Tensorflow, SKLearn, NLTK, OpenFrameWorks