LINLIN(KAREN) YU

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EDUCATION

Shanghai Jiao Tong University(SJTU)   Sept. 2015 - June 2019(expected)

B.S. in Information Security, *School of Electronic Information and Electrical Engineering*

Overall GPA: 85.47/100 Major GPA:86.32/100

RESEARCH INTERESTS

Natural Language Processing	Machine Translation,Natural Language Understanding and so on
Data Science	Data Mining and Information Retrieval
Computer Vision	

RESEARCH

The Improvement Work of Chinese Segmentation Model   May 2018 - Present

BCMI-NLP lab in SJTU   *Advisor: Prof.Hai Zhao*

· Reproduced the work that Modeling Named Entity Embedding Distribution into Hyper-sphere and applied it to the NER(named entity recognition)

· Analyzing different segmentation rules of open corpus and the cause and types of error when training and testing in different corpus excluding the error when training and testing in the same domain

· I am doing some work about building a universal Chinese word segmentation and adding some rules to the segmentation results to meet different segmentation rules. At the same time I will use NER and semantic analysis to improve the accuracy of the neural word segmentation

Alias Method and MH based Acceleration Algorithm   July 2016 - May 2017

for Biterm Topic Model   *Advisor: Dr.Xingwei He*

· Implemented Biterm Topic Model (BTM) using java code as baseline and proposed FastBTM model which is based on Metropolis - Hastings and alias method

· Carried some experiments of our new algorithm on three different datasets including two short text datasets and one long document dataset and we compared the convergence speed of our FastBTM with BTM

· Fast BTM successfully reduces sampling complexity of BTM from $O(K)$ to $O(1)$ (K denotes the number of topics) and the FastBTM is effective for reducing the sampling time of both short text and long text datasets

The Optimization of Blockchain Confidential Transaction Algorithm.   Sept. 2017 - Mar. 2018

Participation in Research Program in SJTU   *Advisor: Prof.Xuejia Lai*

· Read some documents and papers about confidential transaction and researched the core technology including the Pedersen commitment using the math knowledge of Elliptic curve and homomorphic encryption

· Improved the operation efficiency and performance of the algorithm by optimizing the Borromean Range Signature in storage space and Range Proof algorithm in time by 5% in the confidential transaction

· Set up a network using Hyper Fabric platform to realize some Blockchain services such as transaction and query

SELECTED PROJECTS

House Price Forecasting Model in Shanghai
Course project in Data Mining class   May. 2018 - June 2018
                                                        Professor: Lei Fan

· Used Scrapy Framework to get more than 70,000 pices of house information including 7 atrtibutes and price in Shanghai ,and then used CRF++ tools to do chinese segmentation work
· Exploited machine learning algorithms including linear-regression, decision Tree ,Random Forest and XGBoost after data preprocessing including data cleaning and decoding.Adjusted the parameters in the XGBoost model for the best performance

Android Application Development
Course project in Softwear Engineering   Feb. 2018 - June 2018
                                                        Professor: Haitao Liu

· Developed a multi-functional calculator in the Android using Java,which can do math calculation ,unit conversion and currency converter
· Designed a restaurant management system containing SQL database via UML Model for window PC terminals

Programming Projects   Jan. 2017 - Dec. 2017

· Developed a multi-user chat program with server and client front using Python and Socket.,which realize real-time online user prompts and data transmission in any form such as text messages,files,emojis and pictures
· Designed and developed some pages for students to create and query activities with the help of WeChat Official Account platform and MySQL

PUBLICATION

Xingwei He, Hua Xu, Jia Li, Liu He,**Linlin Yu** FastBTM: Reducing the Sampling Time for Biterm Topic Model *Knowledge-Based Systems(KBS), vol. 132, pp. 11-20, 2017. (IF: 4.529)*

HONORS&AWARDS

National Endeavor Fellowship of Shanghai Jiao Tong University for 2016-2017 academic year.

Academic Excellence Scholarship of Shanghai Jiao Tong University for 2015-2016 acdemic year.

SKILLS

Proficiency in programming languages such as C++, Python and familiar with PHP and Java.

Familiar with machine learning algorithms such as LR, Naive Bayes and Random Forest.

Familiar with neural networks such as CNN, RNN, LSTM.

SOCIAL ACTIVITIES

Director of Student union in SJTU   Aug. 2015 - Mar. 2017

· Planned and organized various Debate competitions and DataBang Competitions

Volunteer   Apr.2016 & Oct. 2016

· Volunteered in the Shanghai International Marathon and Shanghai International Half Marathon