FENG QIAN

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EDUCATION

Peking University (PKU), Beijing, China *Sep 2014 - Jul 2018*
Bachelor of Management in Information Management & Information System

	Second Year	Third Year
GPA	3.74	3.89
Ranking/61	3^{rd}	2^{nd}

Bachelor of Science in Electronic Engineering & Computer Science (Dual Major, GPA 3.63)

University of Southern California, LA, USA *Jun 2017 - Sep 2017*
Full-time Researcher at the Melady Group, CS Department on fake news detection under the supervision of Prof. Yan Liu

University of Illinois, Champaign Urbana, IL, USA *Jun 2016 - Sep 2016*
Full-time Researcher at the ES-CAD Lab on video face recognition under the supervision of Prof. Deming Chen.

Microsoft Research Asia (MSRA) *Oct 2017 - Jun 2018*
Full-time researcher in Big Data Mining Group (BDM) on conversation understanding tools for future Microsoft Office® products.

PUBLICATIONS AND MANUSCRIPTS

PUBLICATIONS

1. **Feng Qian**, Chengyue Gong, Luchen Liu, Lei Sha, Ming Zhang. Topic Medical Concept Embedding: Multi-Sense Representation Learning for Medical Concept. *IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*. 2017. (Acceptance Rate 10.4%, oral representation, student award). [paper][ppt]

2. **Feng Qian**, Lei Sha, Baobao Chang, Zhifang Sui. Jointly Extracting Event Triggers and Arguments by Dependency-Bridge RNN and Tensor-Based Argument Interaction. *Association for The Advancement of Artificial Intelligence (AAAI)*. 2018. [paper][ppt]

3. **Feng Qian**, Lei Sha, Luchen Liu, Baobao Chang, Ming Zhang. Syntax Aware LSTM Model for Semantic Role Labeling. *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP) Workshop: Structured Prediction for NLP (SP-NLP)*. 2017. [paper][ppt]

4. Lei Sha, **Feng Qian**, Zhifang Sui, Baobao Chang. Will Repeated Reading Benefit Natural Language Understanding? *China Computer Federation (CCF) Conference on Natural Language Processing & Chinese Computing (NLPCC)*. 2017. [paper][ppt]

5. Lei Sha, Xiaodong Zhang, **Feng Qian**, Baobao Chang, Zhifang Sui. A Multi-View Fusion Neural Network for Answer Selection. *Association for The Advancement of Artificial Intelligence (AAAI)*. 2018. [paper][ppt]

6. Liye Xiao, **Feng Qian**, Wei Shao. Multi-step Wind Speed Forecasting Based on a Hybrid Forecasting Architecture and An Improved Bat Algorithm. *Energy Conversion and Management (ECM, SCI-indexing)*. 2017. [paper]

MANUSCRIPTS

7. **Feng Qian**, Natali Ruchansky, Yan Liu. Fake News Detection Technology: A Survey. With more than 15 pages and 70 references included. Finished and in submission.
8. **Feng Qian**, Natali Ruchansky, Prajwal Anad, Yan Liu. Dataset: Fake News Detection Dataset with Both Article Body and User Responses. Finished and to appear soon.
9. **Feng Qian**, Chengyue Gong, Natali Ruchansky, Lei Sha, Ming Zhang, Yan Liu. Neural User Response Generator: Early Fake News Detection with Wisdom of the Crowd. To be submitted to a top conference in data mining.
10. Chengyue Gong, **Feng Qian**, Lei Sha. Natural Language Generation from Multi-Relational Data. Finished and to be submitted to *International Joint Conferences on Artificial Intelligence (IJCAI)*. 2018.

HONORS

- IEEE BIBM 2017 Technical Committee on Computational Life Sciences (TCCLS) Student Award
- Innovative Researcher Award of Peking University, 2017
  - One of the 37 undergraduate students selected from 50,000+ students including all master and PhD students in Peking University
- Academic Performance Award
  - 1st Three Year Overall Academic Performance in My Department
- Shouren Chen Research Scholarship, 2017
  - Highest Student Research Scholarship of Peking University (0.2%)
- Student Excellent Research Award, 2017 (2%)
- Student Excellent Research Award, 2016 (2%)
- Honorable Mention Award in Mathematical Contest in Modeling (MCM) (10%)

RESEARCH EXPERIENCES

Melady Lab, University of Southern California (USC) May 2017 - Present
Fake news detection using machine learning and deep learning methods
Advisor: Prof. Yan Liu, Dr. Natali Ruchansky

· Finished a first author 15-page survey paper on fake news detection with more than 70 papers included after reading more than 100 papers. [[Manuscript 7.]]
· Collected a brand new fake news detection dataset, which contains both news articles and user responses. Such feature is not possessed by any other dataset. [[Manuscript 8.]]
· Proposed and implemented a Two Layer Convolutional Neural Network with User Response Generator (TCNN-URG). TCNN-URG combines conditional generative model (C-VAE) and deep learning model (CNN) to utilize extra knowledge which lies between user responses and news article. [[Manuscript 9.]]

Institute of Network Computing and Info System, Peking University Jan 2017 - Present
Medical representation learning using machine learning and non-parametric method
Advisor: Prof. Ming Zhang, Dr. Luchen Liu

· Proposed and implemented Topic Medical Concept Embedding (TMCE) to address the problem that current embedding techniques could not consider multi-sense attributes of medical concepts.
· TMCE combines intuitions from both embedding model and non-parametric topic model, and outperforms other strong baselines on diagnose prediction and ability of interpreting.

- Paper published on IEEE BIBM. 2017. with an oral presentation and a special student award. [[Publication 1.]] [paper][ppt]

Key Laboratory of Computational Linguistics, Peking University Sep 2016 - Oct 2017
Deep learning, machine learning, and neural networks on NLP tasks
Advisor: Prof. Baobao Chang, Dr. Lei Sha

- In order to address the problem that current deep learning model cannot utilize high-level semantic information provided by dependency relationships, proposed and implemented Syntax-Aware LSTM (SA-LSTM) which modifies the structure of Bi-LSTM according to the structure of dependency relationships. SA-LSTM reached new state-of-the-art on both Chinese and English SRL task. Work published on EMNLP workshop. 2017. [[Publication 3.]] [paper][ppt]
- Further developed and adapted SA technique to event extraction task. Work published on AAAI. 2018. [[Publication 2.]] [paper][ppt]
- Researched on whether repeated-reading models including deep-LSTM, multi-level attention, and multi-pass Bi-LSTM can help NLP tasks including POS tagging, sentiment analysis, semantic relationship classification, and event extraction. [[Publication 4.]] [paper][ppt]

ES-CAD Lab, University of Illinois at Urbana-Champaign (UIUC) Jan 2016 - Sep 2016
Real time facial recognition system form video
Advisor: Prof. Deming Chen, Co-Advisor: Prof. Zuofu Cheng

- Proposed a new eigen-face frame selection algorithm.
- Designed a hardware integrated real time facial recognition pipeline aiming to move computation forward to front-end hardware, which improved the computation efficiency of servers by 37%.

Other Collaborative Research Projects

- Contributed to part of coding and part of paper writing. [[Publication 5.]] [paper][ppt]
- Contributed to all coding, all results plotting, and part of paper writing. [[Publication 6.]] [paper]
- Contributed to brainstorming, idea proposal, part of coding and paper writing. [[Manuscript 10.]]

ENTREPRENEURSHIP

Technique Consultant at Summit Education Enterprise® Aug 2015 - Present

- Established sales channels with more then 10 top universities in China. Keep donating 10% of all my income.
- Collected and cleaned sales data in the last ten years.
- Trained a xgboost decision tree model on the dataset, found out students who have a higher possibility to become our future customers, and asked salespeople to give them special discounts.
- Enhanced sales by 28% in the year of 2016 and 18% in 2017.

SKILLS

Programming: C, C++, Python (Theano), Java, HTML, JavaScript, JQuery, CSS, Linux, Vim

Language: English (fluent), Mandarin Chinese (native)

- GRE: Verbal 158, Quantitative 167, Analytical Writing 3.5
- TOEFL: Total 112 (Reading 30, Listening 27, Speaking 27, Writing 28)

Teaching: Advanced Algorithm and Programming — Teaching Assistant

Music: Lead guitarist in a famous school band GentleMonster