

Qian YANG

PERSONAL DATA

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RESEARCH INTERESTS

Natural Language Processing (especially Text Summarization, Open Information Extraction, Knowledge Graphs, Machine Translation), Deep Learning and the intersection of AI and HCI.

CURRENT POSITION

NOV 2017 – Postdoctoral Researcher, Computer Science and Engineering Department,
Apr 2018 Pennsylvania State University
Mentor: Prof. Rebecca J. Passonneau

EDUCATION

SEP 2012 – Ph.D., Computer Science, Tsinghua University
JUL 2017 Doctoral Dissertation: Identifying and Connecting Salient Information via Semantic Text Representations
Advisor: Prof. Gerard de Melo

SEP 2008 – B.S., Computer Science, Beijing University of Posts and Telecommunications
JUL 2012 GPA RANK: Top 1%
Nominated in Undergraduate Graduation Ceremony by President: [online](#)

RESEARCH EXPERIENCE

SEP 2013 – *Research Assistant*, Tsinghua University, China
JUL 2017 Group: Web Mining and Language Technology Group (WebLT)
[Conference Paper #1](#), [Conference Paper #2](#), [Manuscript #1](#)

MAY 2016 – *Visiting Student*, RWTH Aachen University, Germany
SEP 2016 Group: Human Language Technology and Pattern Recognition
Topic: Machine Translation and Multilingual Open Information Extraction
Supervisor: Prof. Dr.-Ing. Hermann Ney

DEC 2014 – *Visiting Student*, Columbia University, United States
MAR 2015 Group: Center for Computational Learning Systems (CCLS)
Topic: Assessment of Summaries
Supervisor: Prof. Rebecca J. Passonneau
[Conference Paper #3](#), [Journal Paper #1](#)

- Created *the first* fully automatic version of the pyramid method for summary evaluation, suitable for both students' and machine-generated summaries.

- Achieved results that approach the quality of human summary evaluation, opening up the possibility of wide-spread use in the education domain and elsewhere.

JUL 2014 *Intern*, Assigned to LinYang Electronics Co., Ltd. by Tsinghua University

Topic: Data Encryption for Advanced Metering Infrastructure (AMI) System

Department Manager: Jianfeng Yin, Team Manager: Aibo Shi

Patent: CN104363219A

Prize: Outstanding Individual in Graduates' Summer Internship, 2014

[Journal Paper #2](#)

- Started a new topic in Information Security.
- Quickly learned the theory, designed a novel model to solve the practical problems of data encryption, which has been applied in the next generation of products.

JUN 2009 – *Research Assistant*, Beijing University of Posts and Telecommunications

JUN 2012 Lab: National Key Laboratory of Networking and Switching Technology

Topic: Quantum Coin-flipping Protocols

Supervisor: Prof. Fenzhuo Guo

Prize: Award for Natural Science Innovation, 2011

[Journal Paper #3](#), [Journal Paper #4](#)

- Developed two separate and novel semi-loss-tolerant quantum strong coin flipping protocols.
- Cut down the bias to 0.3536, which is less than that of *all the previous* loss-tolerant protocols.

JUN 2011 – *Research Assistant*, Beijing University of Posts and Telecommunications

DEC 2011 Lab: Mathematical Innovation Laboratory

Topic: Improvement of Artificial Bee Colony (ABC) Algorithm

Supervisor: Prof. Xinchao Zhao

Prize: Third Prize of Scilab Contest, 2011

- Proposed a simplified and improved Artificial Bee Colony algorithm with higher efficiency over *all the previous* similar algorithms tested by twenty-two standard test functions.
- Implemented an Artificial Bee Colony toolbox for Scilab (an open-source software platform).

PUBLICATIONS

Conference Papers

1. HiText: Text Reading with Dynamic Saliency Marking.
Qian Yang, Yong Cheng, Sen Wang, Gerard de Melo.
WWW 2017.
2. Neural Machine Translation with Pivot Languages.
Yong Cheng, **Qian Yang**, Yang Liu, Maosong Sun, Wei Xu.
IJCAI 2017.
3. PEAK: Pyramid Evaluation via Automated Knowledge Extraction.
Qian Yang, Rebecca J. Passonneau, Gerard de Melo.
AAAI 2016.

Journal Papers

1. Wise Crowd Content Assessment and Educational Rubrics.
Rebecca J. Passonneau, Ananya Poddar, Gaurav Gite, Alisa Krivokapic, **Qian Yang**, Dolores Perin.
International Journal of Artificial Intelligence in Education, 10.1007/s40593-016-0128-6, 2016.
2. Research on the Key Management for AMI System Based on IEC62056 Standard.
Jianfeng Yin, Aibo Shi, **Qian Yang**, Xiaohang Zhang, Liusheng Huang, Haitao Ji.
Electrical Measurement and Instrumentation, Issue No. 2, 2016.
3. Semi-loss-tolerant Strong Quantum Coin-flipping Protocol Using Quantum Non-demolition Measurement.

Qian Yang, Jiajun Ma, Fenzhuo Guo, Qiaoyan Wen.

Quantum Information Processing, 10.1007/s11128-014-0747-5, 2014. Impact factor: 2.960 (2013)

4. Semi-loss-tolerant Strong Coin Flipping Protocol Using EPR Pairs.

Jiajun Ma, Fenzhuo Guo, **Qian Yang**, Yanbin Li, Qiaoyan Wen.

Quantum Information and Computation, Vol. 12 No. 5 and 6, 2011. Impact factor: 1.885 (2010)

SELECTED HONORS AND AWARDS

- 2017 Google Women Techmakers Scholar, Asia Pacific (Among 8 from China)
- 2014 Outstanding Individual in Graduates' Summer Internship (2 per institute)
- 2011 Meritorious Winner of International Interdisciplinary Contest in Modeling (International)
- 2011 Third Prize of Scilab Contest (International)
- 2011 Gold Medal for ACM Competition (University-level)
- 2010 First Prize of National Mathematical Modeling Contest (National)
- 2010 & 2009 First Prize Scholarship (¥1000, for Top 5% student)
- 2008 Enterprise Scholarship (¥5000, for 5th/316 student)

- 2014 & 2010 Outstanding Student Leader (1 per institute)

PROFESSIONAL ACTIVITIES

PROGRAM COMMITTEE MEMBER NAACL(2018), IJCAI-ECAI(2018), ACL(2018)

TEACHING EXPERIENCE

- 2018 SPRING Natural Language Processing
Co-teach with: Prof. Rebecca J. Passonneau
- 2015 SPRING Speech Science, Technology and Innovative Applications
TA of Instructors: Prof. P.C. Ching, Prof. Tan Lee, Prof. Ken Ma, Prof. Helen Meng,
and Prof. William S.-Y. Wang, all from the Chinese University of Hong Kong;
Prof. Gerard de Melo, from Tsinghua University
- 2014 FALL Hot Topics in Computational Biology
TA of Instructor: Prof. Jianyang (Michael) Zeng

REFERENCES

Prof. Rebecca J. Passonneau
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Prof. Gerard de Melo
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