Qing Lyu

RESEARCH INTERESTS Natural Language Processing, Computational Linguistics, Interpretability, Robustness, Probing Language Models

EDUCATION

University of Pennsylvania, Philadelphia, USA Aug 2019 - Present Ph.D. Computer and Information Science GPA: 4.00/4.00

Advisor: Chris Callison-Burch

Tsinghua University, Beijing, China Sept 2015 - Jul 2019 GPA: 3.88/4.00

B.A. English Language and Literature (Linguistics track)

Advisor: Xiaojing Bai

PUBLICATIONS AND **MANUSCRIPTS**

[8] Q. Lyu, H. Zheng, D. Li, L. Zhang, M. Apidianaki, C. Callison-Burch. Is "my favorite new movie" my favorite movie? Probing the Understanding of Recursive Noun Phrases. In submission.

[7] S. Zhou*, L. Zhang*, Q. Lyu, Y. Yang, G. Neubig and C. Callison-Burch. Show Me More *Details: Discovering Event Hierarchies from WikiHow.* (*Equal contribution) In submission.

[6] Y. Yang, A. Panagopoulou, Q. Lyu, L. Zhang, M. Yatskar and C. Callison-Burch. Visual Goal-Step Inference using wikiHow.

In EMNLP 2021; presented at the 2nd Workshop on Advances in Language and Vision Research at NAACL 2021.

[5] **Q. Lyu**, H. Zhang, E. Sulem, D. Roth. Zero-shot Event Extraction via Transfer Learning: Challenges and Insights.

In ACL 2021.

[4] O. Lyu*, L. Zhang* and C. Callison-Burch. Goal-Oriented Script Construction. (*Equal contribution)

In INLG 2021.

[3] H. Wen, Y. Lin, T. Lai, X. Pan, S. Li, X. Lin, B. Zhou, M. Li, H. Wang, H. Zhang, X. Yu, A. Dong, Z. Wang, Y. Fung, P. Mishra, Q. Lyu, D. Surís, B. Chen, Susan W. Brown, M. Palmer, C. Callison-Burch, C. Vondrick, J. Han, D. Roth, S-F. Chang, H. Ji. RESIN: A Dockerized Schema-Guided Cross-document Cross-lingual Cross-media Information Extraction and Event Tracking System.

In NAACL 2021 (demo track).

[2] L. Zhang, **Q. Lyu** and C. Callison-Burch. *Intent Detection with WikiHow*. In AACL-IICNLP 2020.

[1] L. Zhang*, Q. Lyu*, and C. Callison-Burch. Reasoning about Goals, Steps, and Temporal *Ordering with WikiHow.* (*Equal contribution)

In EMNLP 2020; Spotlight presentation at the Workshop on Enormous Language Models at ICLR 2021.

SERVICES

• Reviewer for the Beyond the Imitation Game Benchmark (BIG-Bench) 2021 initiated by Google Research

• Co-organizer of CLUNCH, Penn's NLP seminar series 2020 University of Pennsylvania

TEACHING **EXPERIENCE**

• Teaching Assistant — Computational Linguistics CIS 530: graduate level

University of Pennsylvania

• Teaching Assistant — Applied Machine Learning

Fall 2019

Fall 2021

CIS 419/519: undergraduate/graduate level

• Teaching Assistant — Computational Linguistics undergraduate level

University of Pennsylvania Fall 2018 Tsinghua University

INDUSTRY EXPERIENCE

Algorithm Intern

Sept 2018 - Oct 2018

Tomorrow Advancing Life (TAL) Education Group, AI Lab

Beijing, China

- Developed a model to predict the dropout rate of individual students in online courses, based on Linear Dynamical Systems (LDS).
- Our model improved the dropout prediction F1 score by 20% over the existing system. and was officially launched as part of the online teaching platform.
- Gave a public talk on BERT and the attention mechanism in the paper sharing group, attended by the language, speech, and vision teams.

COURSES

Graduate

Operating Systems (A+), Fundamentals of Linear Algebra and Optimization (A+), Theory of Computation (A), PhD Independent Study (A+)

Undergraduate

Computational Linguistics (A-), Applied Machine Learning (A+), Computational Modeling of Biological Signals and Systems(A), Probability and Statistics (A-), Data Structures (A), Principal and Application of Database (A), Language Acquisition (A-), Psycholinguistics (A-), Language and Cognition (A), Introduction to Formal Pragmatics (A-), Introduction to Formal Semantics (A-), Introduction to Syntax (A), Introduction to Linguistics (A)

HONORS

Excellent Graduation Thesis Award, Tsinghua University

2019

National Scholarship, Chinese Ministries of Education and Finance 3rd Place at "Sentiment analysis of Chinese Metaphor", Shared Task at the 17th China

2018

National Conference on Computational Linguistics (CCL 2018)

2018

Jiang Nanxiang Scholarship, Tsinghua University

2017

Merit-based Scholarship of all school years, Tsinghua University

2015 - 2019

First Prize (Individual Contest), National Linguistics Olympiad (NOL)

2014

SKILLS Programming Skills

Python, PyTorch, C/C++, SQL, MATLAB

Language Skills

Chinese (native), English (proficient), French (conversational)

TEST SCORES

GRE (2018): Verbal 168, Quantitative 170, Analytical Writing 4.0

TOEFL (2018): Reading 30, Listening 30, Speaking 29, Writing 30