# Qingyue Wang

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## EDUCATION

University of Chinese Academy of Sciences

Ph.D Student of Cyber Security GPA: 3.7/4 (Top 10%)

Thesis: Multi-slot Joint Learning for Dialogue State Tracking.

Henan University

Bachelor of Network Engineering GPA: 3.8/4 (Top 5%)

Aug 2018 – Jun 2024

Beijing, China

Aug 2014 – Jun 2018

Kaifeng, China

## Research Experience

#### Recursively Summarizing Enables Long-Term Dialogue Memory in LLMs Jun. 2023 – Present

- We recursively generate summaries to help LLMs to realize long-term memory. It was a potential solution to enable the LLMs to model the extremely long context without expensively expanding the max length setting.
- Our model can generate more consistent responses in a long-context (multi-session) conversation; It has attracted interests of venture companies.

#### Mixture of Semantic-Independent Experts for Dialogue State Tracking Sept 2022 – Feb 2023

- We propose a simple and effective solution, which explicitly disentangles the semantics of seen data, and can improve the model's performance and robustness using the mixture-of-experts mechanism.
- We achieve averaging 5%~10% improvement on the benchmark with negligible training and deployment costs; The paper was accepted by ACL as an oral.

## Slot Dependency Modeling for Zero-shot Dialogue State Tracking

Oct 2021 – May 2022

- We propose a prompt-based approach to model three dependencies on slots, i.e. slot-slot dependency, slot-value dependency and slot-context dependency in dialog state tracking.
- The paper was accepted by COLING as an oral; It has been a common-used baseline in slot dependency modeling.

## Publications & Works

- [1]. Qingyue Wang, Liang Ding, Yanan Cao, Yibing Zhan, Zheng Lin, Dacheng Tao and Li Guo. Divide, Conquer, and Combine: Mixture of Semantic-Independent Experts for Zero-Shot Dialogue State Tracking, ACL 2023, CCF-A.
- [2].Qingyue Wang, Yanan Cao, Piji Li, Yanhe Fu and Li Guo. Slot Dependency Modeling for Zero-shot Cross-domain Dialogue State Tracking, COLING 2022.
- [3]. Qingyue Wang, Yanan Cao, Piji Li, Zheng Lin, Yanhe Fu, Zheng Lin and Li Guo. Confident Slot Iterative Learning for Multi-Domain Dialogue State Tracking, CogSci 2023, CCF-B.
- [4]. Qingyue Wang, Liang Ding, Yanan Cao, Zhiliang Tian, Shi Wang, Dacheng Tao and Li Guo. Recursively Summarizing Enables Long-Term Dialogue Memory in Large Language Models, awaiting submission.
- [5]. Yu Liu, Yanan Cao, Shi Wang, Qingyue Wang and Guanqun Bi. Generative Models for Complex Logical Reasoning over Knowledge Graphs, WSDM 2023, CCF-B.
- [6]. Qingyue Wang, Yanan Cao, Yafang Wang and Li Guo. Incorporating Specific Knowledge into End-to-End Task-oriented Dialogue Systems, the International Joint Conference on Neural Networks, IJCNN 2021, CCF-C.
- [7]. Qingyue Wang, Hao Liu, Yanan Cao and Li Guo. A Sequence Transformation Model for Chinese Named Entity Recognition, KSEM 2018, CCF-C.
- [8]. Yanhe Fu, Yi Liu, Yanan Cao, Yubing Ren, Qingyue Wang, Fang Fang and Cong Cao A Multi-granularity Similarity Enhanced Model for Implicit Event Argument Extraction, NLPCC 2023, CCF-C.

## Awards & Certificates

Doctoral National Scholarship (Top 0.2%)	Oct 2023
Student Travel Award (CogSci Conference)	Jun 2023
Merit Students of University of Chinese Academy of Sciences	Sept 2019
Outstanding Graduates of Henan Province	Jun 2018

### OTHERS

Technical Skills: Python, Deep Learning Tools (Pytorch, Tensorflow), Matlab, Linux **Project Experiences:** Detection of Texts Generated by LLMs (Core Member)