# YIHENG SHU (舒意恒)

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## **EDUCATION & EXPERIENCE**

Master in Computer Technology, Nanjing University Advised by Prof. Yuzhong Qu, Websoft research group Nanjing, China, Sep. 2020 - Jun. 2023

GPA: 90.96 / 100

Bachelor in Software Engineering, Northeastern University Advised by Prof. Guibing Guo and Prof. Gang Wu. Shenyang, China, Sep. 2016 - Jun. 2020 GPA: 4.1073 / 5.0, top 1.7%

Advised by Prof. Guibing Guo and Prof. Gang Wu

Beijing, China, Feb. 2022 - Feb. 2023

Full-time Research Intern, Microsoft Research Asia

Advised by Researcher Zhiwei Yu, Knowledge Computing group

## RESEARCH INTERESTS

My research interests include question answering (QA) and knowledge graph (KG). Currently, I mainly focus on knowledge base question answering (**KBQA**) with semantic parsing-based methods, which converts natural language questions into structured formal queries such as SPARQL. I attempt to address challenges such as generalization and data scarcity. I have also conducted some research about recommender systems.

#### **PUBLICATIONS**

6. Question Decomposition Tree for Answering Complex Questions over Knowledge Bases

[AAAI'23] Xiang Huang, Sitao Cheng, Yiheng Shu, Yuheng Bao, Yuzhong Qu

5. TIARA: Multi-grained Retrieval for Robust Question Answering over Large Knowledge Base

[EMNLP'22] Yiheng Shu, Zhiwei Yu, Yuhan Li, Börje F. Karlsson, Tingting Ma, Yuzhong Qu, Chin-Yew Lin

4. Logical Form Generation via Multi-task Learning for Complex Question Answering over Knowledge Bases

[COLING'22] Xixin Hu, Xuan Wu, Yiheng Shu, Yuzhong Qu

3. EDG-based Question Decomposition for Complex Question Answering over Knowledge Bases

[ISWC'21] Xixin Hu, Yiheng Shu, Xiang Huang, Yuzhong Qu

2. Deep Learning for Sequential Recommendation: Algorithms, Influential Factors, and Evaluations

[TOIS'20] Hui Fang, Danning Zhang, Yiheng Shu, Guibing Guo

1. Deep Learning-based Sequential Recommender Systems: Concepts, Algorithms, and Evaluations

[ICWE'19 tutorial] Hui Fang, Danning Zhang, Guibing Guo, Yiheng Shu

#### SELECTED HONORS & AWARDS

| First-class Yingcai Scholarship, Nanjing University                                | 2022        |
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| First-class Academic Scholarship for Master Students, Nanjing University           | 2020 - 2022 |
| Provincial Excellent Graduates (top 3%), Education Department of Liaoning Province | 2020        |
| Meritorious Winner in MCM/ICM (international top 7%), COMAP                        | 2019        |
| Suzhou Industrial Park Scholarship(top 5%), Northeastern University (China)        | 2019        |
| Pacemaker to Outstanding Student (top 1%), Northeastern University (China)         | 2018        |
| National Scholarship (top 3%), Ministry of Education of the P.R. China             | 2018        |

### TEACHING ASSISTANCE

Linux Operating System Analysis, Northeastern University, China

2017 Spring

Last modified: Mar., 2023