Yuxiang Nie

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Education

- **School of Computer Science & Technology, Beijing Institute of Technology** — Beijing, China
  Master Student, Computer Science; GPA: 3.90/4.00 — *Sept 2020 - present*

- **School of Computer Science & Technology, Beijing Institute of Technology** — Beijing, China
  Bachelor of Engineering, Computer Science; GPA: 3.89/4.00 (Rank: 3/189) — *Sept 2016 - June 2020*

Publications

- **Yuxiang Nie**, Heyan Huang, Wei Wei, Xian-Ling Mao. **Capturing Global Structural Information in Long Document Question Answering with Compressive Graph Selector Network** *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing* (EMNLP 2022)
- **Yuxiang Nie**, Heyan Huang, Zewen Chi, Xian-Ling Mao. **Unsupervised Question Answering via Answer Diversifying** Proceedings of *the* 29^{th} *International Conference on Computational Linguistics* (COLING 2022)
- Yong Hu, Heyan Huang, Tian Lan, Xiaochi Wei, **Yuxiang Nie**, Jiarui Qi, Liner Yang and Xian-Ling Mao. **Multi-task Learning for Low-resource Second Language Acquisition Modeling** *Asia-Pacific Web (APWeb) and Web-Age Information Management (WAIM) Joint International Conference on Web and Big Data* (WAIM 2020)

Projects

- **Conversational Recommendation System** — Singapore (remotely)
  Advisor: Lizi Liao — *Sept. 2022 - Present*
  - Review the research field of dialog system and recommendation system.
  - Design a conversational recommendation system with better human engagement and recommendation accuracy.
  - Analyze the related datasets and try to find out shared patterns among these datasets.

- **Long Document Question Anwering System** — Beijing, China
  Advisor: Xian-Ling Mao — *Nov. 2021 - June 2022*
  - Proposed an evidence selection model for long document question answering system to extract evidence in the long paper corresponding to a specific question.
  - Applied a graph network to capture the long-range information in the evidence selection system.
  - Constructed a long document question answering dataset (based on HotpotQA) to evaluate the system.
  - Designed extensive experiments to demonstrate the better performance of the proposed system over previous methods on two benchmark datasets.
  - Wrote the paper "Capturing Global Structural Information in Long Document Question Answering with Compressive Graph Selector Network" (accepted by EMNLP 2022).

- **Unsupervised Question Anwering System** — Beijing, China
  Advisor: Xian-Ling Mao — *Sept. 2021 - May 2022*
  - Proposed an unsupervised question answering system to tackle with answer types beyond named entities in the low-resource question answering setting.
  - Applied a simple answer span extension algorithm, an answer-type dependent data augmentation method and a denoising filter to solve the problem.
  - Constructed a question answering dataset with diverse answers without supervision signals.
  - Designed extensive experiments to demonstrate the better performance of the proposed system over previous methods on five benchmark datasets.
  - Wrote the paper "Unsupervised Question Answering via Answer Diversifying" (accepted by COLING 2022).

- **Academic Search Engine - HammerScholar** — Beijing, China
  Advisor: Xian-Ling Mao — *Jan. 2021 - May 2021*
  - Constructed a search engine for academic information seeking.
  - Connected data flow between the academic dataset and the academic search indices.
  - Built a text-to-video search engine (as a submodule in HammerScholar) to seek for oral videos (video format) via video content (text format).
  - Associated each paper with its blogs (if any) in the search engine to help visitors better understand the paper.

Selected Awards

- National Scholarship, Ministry of Education of the People's Republic of China (Top 2%), 2019
- National Scholarship, Ministry of Education of the People's Republic of China (Top 2%), 2018
- First Class Scholarship, Beijing Institute of Technology (Top 5%), 2019
- First Class Scholarship, Beijing Institute of Technology (Top 5%), 2018
- First Class Scholarship, Beijing Institute of Technology (Top 5%), 2017
- Honorable Mention , Mathematical Contest in Modeling(MCM), 2018

Skills

- **Programming** Python, C++, Java, Matlab, Latex, HTML
- **Frameworks** Pytorch, TensorFlow, Scikit-learn, NLTK, SpaCy, Flask, Matplotlib
- **Platforms** Linux, Windows

Languages

- **Chinese (Mandarin)** Native Fluency
- **English** Advanced Proficiency; TOEFL: 97, GRE: 326+3.0