

RESEARCH INTERESTS

- **Natural Language Processing**

Graph4NLP, Text Summarization, Text Generation

- **Graph Mining**

Graph Neural Network

EDUCATION

University of California, Davis

Ph.D. Candidate in Computer Science

Transferred from Florida State University

Thesis: Leveraging structures for natural language processing

Expected: Mar. 2024

Advisor: Dr. Jiawei Zhang

Georgia Institute of Technology

M.S. in Computational Science and Engineering

M.S. in Electrical and Computer Engineering

Dec. 2018

University of Illinois, Urbana and Champaign

B.E. in Electrical Engineering

May 2016

PROFESSIONAL EXPERIENCE

Amazon Web Services (AWS) AI

Incoming Applied Scientist Intern (Mentor: Dr. Zhiheng Huang)

Will work on document ranking and question answering.

Santa Clara, CA

Summer 2023

Megagon Lab

Research Intern (Mentors: Dr. Hayate Iso, Dr. Sairam Gurajada)

Working on building fine-grained text editing systems.

Mountain View, CA

Spring 2023

Tencent AI Lab

Research Intern (Mentors: Dr. Sangwoo Cho, Dr. Kaiqiang Song)

Worked on graph-based unsupervised multi-document summarization; proposed a holistic framework that balances summary salience and diversity.

Research paper is under review.

Seattle, WA

Summer 2022

Salesforce Research

Research Intern (Mentors: Dr. Semih Yavuz, Dr. Yingbo Zhou)

Worked on addressing entity-level abstractive summarization hallucination by controlling entity coverage and domain transfer for abstractive summarization with intermediate data.

Research paper accepted by NAACL 2022.

Remote

Summer 2021

Kidswant Company

Data Mining Research Intern (Mentor: Dr. Hang Liu)

Worked on extracting lifecycle rules for different classes of products and improved the recommendation system; Developed tool with Django and Pyecharts for dynamic data visualization.

Nanjing

Summer 2018

SCHOLARSHIPS AND AWARDS

- UC Davis Graduate Group in Computer Science (GGCS) Research Fellowship 2023
- FSU Travel Award 2020
- FSU Adelaide D. Wilson Graduate Fellowship Endowment Fund 2019
- UIUC Russell E. Berthold Scholarship 2015

PUBLICATIONS

- [1] **Zhang, Haopeng**, X. Liu, and J. Zhang, “Extractive summarization via chatgpt for faithful summary generation”, *arXiv preprint arXiv:2304.04193*, 2023.
- [2] **Zhang, Haopeng**, X. Liu, and J. Zhang, “Diffusum: Generation enhanced extractive summarization with diffusion”, *Findings of the Association for Computational Linguistics: ACL 2023 (ACL)*, 2023.
- [3] **Zhang, Haopeng**, S. Cho, K. Song, X. Wang, J. Zhang, and Y. Dong, “Unsupervised multi-document summarization with holistic inference”, under review, 2022.
- [4] **Zhang, Haopeng**, X. Liu, and J. Zhang, “Scientific document summarization via contrastive hierarchical graph neural network”, under review, 2022.
- [5] **Zhang, Haopeng**, X. Liu, and J. Zhang, “Hegel: Hypergraph transformer for long document summarization”, *Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2022.
- [6] **Zhang, Haopeng**, S. Yavuz, W. Kryściński, K. Hashimoto, and Y. Zhou, “Improving the faithfulness of abstractive summarization via entity coverage control”, *Findings of the 2022 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL)*, pp. 528–535, 2022.
- [7] **Zhang, Haopeng** and J. Zhang, “Centrality meets centroid: A graph-based approach for unsupervised document summarization”, *arXiv preprint arXiv:2103.15327*, 2021.
- [8] **Zhang, Haopeng** and J. Zhang, “Text graph transformer for document classification”, *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP)*, pp. 8322–8327, 2020.
- [9] J. Zhang, **Zhang, Haopeng**, L. Sun, and C. Xia, “Graph-bert: Only attention is needed for learning graph representations”, *arXiv preprint arXiv:2001.05140*, 2020.

SERVICE

- **Journal Reviewer**

IEEE Transactions on Big Data, IEEE/ACM Transactions on Audio, Speech, and Language Processing
Artificial Intelligence Review, Computer Speech & Language.

- **Conference Reviewer**

AAAI 21/22, KDD 23, EACL 23, ACL 23, IJCNN 23.

TEACHING

- **Teaching Assistant@UC Davis**

Deep Learning (ECS198G)

Winter 2022

- **Teaching Assistant@FSU**

Advanced Database Systems (COP5725)

Fall 2021, Spring 2021

Complexity and Analysis of Data Structures and Algorithms (COP4531)

Spring 2020

Theory and Structure of Databases (COP4710)

Fall 2020, Fall 2019

- **Teaching Assistant@Georgia Tech**

Semiconductor Devices (ECE3450)

Fall 2017, Spring 2017