

## RESEARCH INTERESTS

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- **Natural Language Processing**

Graph4NLP, Summarization

- **Graph Mining**

Graph neural network

## EDUCATION

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**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

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**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. Estevam Hruschka)

Working on building controllable 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

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- 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

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- [1] **Zhang, Haopeng**, X. Liu, and J. Zhang, “Exploring foundation models for extractive summarization”, under review, 2023.
- [2] **Zhang, Haopeng**, X. Liu, and J. Zhang, “Diffusum: Generation enhanced extractive summarization with diffusion”, under review, 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”, *Finding 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

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- **Journal Reviewer**

IEEE Transactions on Big Data, Artificial Intelligence Review, Computer Speech & Language.

- **Conference Reviewer**

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

## TEACHING

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- **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