

Yucheng Shi

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EDUCATION

- **University of Georgia, Athens, US**
Ph.D. in Computer Science Advisor: Prof. Ninghao Liu Jan. 2022 - Present
- **North China Electric Power University, Beijing, China**
M.S. in Renewable Energy and Clean Energy Sep. 2018 - Jun. 2021
- **North China Electric Power University, Beijing, China**
B.Eng. in Renewable Energy Science and Engineering Sep. 2014 - Jun. 2018

RESEARCH INTERESTS

- **Graph Learning:** graph self-supervised learning; graph-enhanced large language models.
- **Large Language Models:** model editing; cold-start recommendation system.
- **Trustworthy Machine Learning:** model interpretability; backdoor defense.

PUBLICATIONS

Conference Publications

- **Yucheng Shi**, Mengnan Du, Xuansheng Wu, Zihan Guan, Jin Sun, Ninghao Liu. Black-box Backdoor Defense via Zero-shot Image Purification. *Conference on Neural Information Processing Systems (NeurIPS)*, 2023.
- **Yucheng Shi**, Yushun Dong, Qiaoyu Tan, Jundong Li, Ninghao Liu. GiGaMAE: Generalizable Graph Masked Autoencoder via Collaborative Latent Space Reconstruction. *ACM International Conference on Information and Knowledge Management (CIKM)*, 2023.
- **Yucheng Shi**, Kaixiong Zhou, Ninghao Liu. ENGAGE: Explanation Guided Data Augmentation for Graph Representation Learning. *European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML-PKDD)*, 2023.
- **Yucheng Shi***, Hehuan Ma*, Wenliang Zhong*, Qiaoyu Tan, Gengchen Mai, Xiang Li, Tianming Liu, Junzhou Huang. Chatgraph: Interpretable text classification by converting Chatgpt knowledge to graphs. *International Workshop on Learning with Knowledge Graphs@ICDM (ICDMW)*, 2023.

Journal Publications

- **Yucheng Shi**, Weiguo He, Jian Zhao, Aoyu Hu, Jingna Pan, Haizheng Wang, and Honglu Zhu. Expected output calculation based on inverse distance weighting and its application in anomaly detection of distributed photovoltaic power stations. *Journal of Cleaner Production (IF=11.1)*, 2020.
- Honglu Zhu, **Yucheng Shi**, Haizheng Wang, and Lingxing Lu. New feature extraction method for photovoltaics array output time series and its application in fault diagnosis. *IEEE Journal of Photovoltaics (IF=3.57)*, 2020.
- Jingna Pan, Weiguo He, **Yucheng Shi**, Ruyin Hou, and Honglu Zhu. Uncertainty analysis based on non-parametric statistical modeling method for photovoltaic array output and its application in fault diagnosis. *Solar Energy (IF=7.188)*, 2021.
- Hao Zhen, Dongxiao Niu, Keke Wang, **Yucheng Shi**, Zhengsen Ji, and Xiaomin Xu. Photovoltaic power forecasting based on GA improved Bi-LSTM in microgrid without meteorological information. *Energy (IF=9.0)*, 2021.
- Hao Zhen, Dongxiao Niu, Keke Wang, **Yucheng Shi**, Zhengsen Ji, and Xiaomin Xu. Photovoltaic power forecasting based on GA improved Bi-LSTM in microgrid without meteorological information. *Energy (IF=9.0)*, 2021.

ArXiv Preprint

- **Yucheng Shi***, Shaochen Xu*, Zhengliang Liu, Tianming Liu, Xiang Li, Ninghao Liu. MedEdit: Model Editing for Medical Question Answering with External Knowledge Bases. **arXiv**, 2023.
- Ziqi Zhao*, **Yucheng Shi***, Shushan Wu*, Fan Yang, Wenzhan Song, Ninghao Liu. Interpretation of Time-Series Deep Models: A Survey. **arXiv**, 2023.
- Chenxu Zhao, Wei Qian, **Yucheng Shi**, Mengdi Huai, Ninghao Liu. Automated Natural Language Explanation of Deep Visual Neurons with Large Models. **arXiv**, 2023.
- Xuansheng Wu, Huachi Zhou, **Yucheng Shi** Wenlin Yao, Xiao Huang, Ninghao Liu. Towards Personalized Cold-Start Recommendation with Prompts. **arXiv**, 2023.

RESEARCH EXPERIENCE

- **Research Assistant at University of Georgia** Jan. 2022 - Present
 - Current topic: Exploring how to utilize knowledge graphs to enhance the pre-trained LLMs.
 - Member of an NSF Project: Graph-Oriented Usable Interpretation.
- **Research Assistant at North China Electric Power University** Sep. 2018 - Jun. 2021
 - Developed anomaly detection models for PV arrays.

TEACHING & TALKS

- **Teaching Assistant at University of Georgia** Jan. 2023 - Present
 - Undergraduate/graduate course: CSCI4380/6380 Data Mining.
- **Teaching Assistant at University of Georgia** Aug. 2022 - Dec. 2022
 - Undergraduate/graduate course: CSCI4360/6360 Data Science.
- **Talk at Harvard Medical School AIXMed Seminar** Aug. 2023
 - Topic: LLMs editing with external knowledge graphs for medical QA.

AWARDS & ACTIVITIES

- **NeurIPS 2023 Scholar Award.** – (10/2023)
- **China National Scholarship** – (09/2019-06/2020)
- **Pacemaker to Graduate Student(top 0.8%)** – (09/2019-06/2020)
- **First-class Scholarship** – (09/2018-06/2019), (09/2019-06/2020).

SERVICE

Reviewer

- ACM Transactions on Knowledge Discovery from Data (TKDD)
- ACM TheWebConf 2024 Conference, 2024

External Reviewer

- The 17th ACM International Conference on Web Search and Data Mining (WSDM), 2024
- The 32nd ACM International Conference on Information and Knowledge Management (CIKM), 2023
- European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases, 2023

SKILLS

- **Skills:** Python, Linux, Matlab, C, Latex