

# XIAO SONG

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## INTEREST

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Computer Vision, Natural Language Processing, Causality, and Biomedicine.

## EDUCATIONS

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### Nanjing University

Sep 2024 - present

*Doctor of Philosophy, Computer Science and Technology*

Advised by: Prof. Caifeng Shan

### Beijing University of Technology

Sep 2020 - Jun 2023

*Master of Philosophy, Computer Science and Technology*

Advised by: Assoc. Prof. Xiaodan Zhang (main advisor) & Prof. Junzhong Ji

### University of Jinan

Sep 2016 - Jun 2020

*Bachelor of Engineering, Computer Science and Technology*

Advised by: Assoc. Prof. Lixin Du

## WORK EXPERIENCE

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### Shenzhen Institute of Advanced Technology, Chinese Academy of Sciences

Jul 2023 - Jul 2024

*Full-time Research Assistant, Shenzhen*

PI: Assoc. Prof. Ruxin Wang

### The University of Hong Kong

Aug 2022 - Oct 2022

*Research Internship, Remote*

Advised by: Assi. Prof. Liangqiong Qu

## HONORS & REWARDS

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1. Graduate Science and Technology Innovation Award (Excellent Award), Beijing University of Technology, 2024.
2. Excellent Master's Thesis (3 A grades given by anonymous reviewers), Beijing University of Technology, 2023.
3. Outstanding Graduates, Beijing University of Technology, 2023.
4. Graduate Science and Technology Innovation Award (First Prize), Beijing University of Technology, 2023.
5. Academic Excellence Scholarship (Second-Class, Top 10%), Beijing University of Technology, 2020-2021.
6. Outstanding Graduates, University of Jinan, 2020.
7. Mathematics Competition of Chinese College Students (First Prize), Chinese Mathematical Society, 2019.

## PUBLICATIONS

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### 1. Rethinking Radiology Report Generation via Causal Inspired Counterfactual Augmentation.

Xiao Song, Jiafan Liu, Yun Li, Yan Liu, Wenbin Lei, Ruxin Wang.

*The 15th ACM BCB*, 2024, **Oral**.

### 2. Multi-scale Superpixel based Hierarchical Attention Model for Brain CT Classification.

Xiao Song, Xiaodan Zhang, Junzhong Ji, Ying Liu.

*J. Vis. Commun. Image R. (JVCIR)*, 2023.

### 3. Cross-modal Contrastive Attention Model for Medical Report Generation.

Xiao Song, Xiaodan Zhang, Junzhong Ji, Ying Liu, Pengxu Wei.

*The 29th COLING, 2022, Oral.* (a top NLP conference)

### 4. Multi-scale Superpixel based Fusion Network for Brain CT Classification.

Junzhong Ji, Menglong Zhang, Xiao Song, Xiaodan Zhang.

*China Sciencepaper, 2022.*

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## PATENTS

1. 宋晓(Xiao Song), 王如心. 基于反事实数据增强的放射学报告生成方法. CN202311704996.X
2. 张晓丹, 宋晓(Xiao Song), 冀俊忠. 一种基于跨模态对比注意力机制的医学报告自动生成方法. CN202210563429.6

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## PROJECTS

### 1. Optimization Modeling and Causal Methods for Multimodal Medical Imaging Analysis. 2025-2028.

Funded by: National Natural Science Foundation of China.      Role: Participation.

### 2. Evaluation System and Optimization Modeling of Trustworthy Medical Large Language Models. 2025-2026.

Funded by: Jiangsu Provincial Department of Education.      Role: Principal Investigator.

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## SKILLS

Programing: Python, C, C++, Java, C#, SQL, PHP, HTML.

Deep Learning Frameworks: Pytorch.