

Ruru Xu

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[Personal webpage](#)

[Google scholar page](#)

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PROFILE

I am a PhD student at Istanbul Technical University, Computer Engineering, where I have studied since 2021. I work as a researcher in the 2232 International Fellowship for Outstanding Researchers Program of TUBITAK(Project No: 118C353). My research focuses on MRI reconstruction using deep learning and reinforcement learning methods. My professor is Ilkay Oksuz.

From 2018 to 2020, I was an exchange student at the Lab of Interactive Media Computing at Fudan University. During this time, I was working on projects related to autonomous driving, which involved object detection, pedestrian recognition, path planning, etc., working under the guidance of Professor Cheng Jin.

From 2017 to 2020, I pursued my Master's studies at the SICT(Shanghai Institute of Computing Technology), with a research direction in computer vision. My professor is Xinli Min.

From 2017 to 2020, I interned at Shanghai Shen Teng Technology Co., Ltd. . My work there involved contributing to smart city-related projects.

In 2016, I earned my Bachelor's degree in Computer Science and Technology.

EDUCATION and RESEARCH EXPERIENCE

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| <i>PhD Candidate, GPA: 3.43,</i> | March 2021-present |
| Computer Engineering | |
| Istanbul Technical University, Istanbul, Turkey | |

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| <i>Exchange learning,</i> | April 2018-March 2020 |
| Lab of Interactive Media Computing | |
| Fudan University, Shanghai, China | |

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| <i>Master's Degree, GPA: 3.78,</i> | September 2017-March 2020 |
| Engineering Computer Software and Theory | |

Shanghai Institute of Computing Technology(SICT), Shanghai, China

Thesis: Research and Implementation of Intelligent Evaluation Algorithm of Street Cleanliness Based on Vision **Online**

Bachelor's degree,

September 2012-July 2016

Computer Science and Technology

Liaocheng University, Liaocheng, China

Work Experience

Student Intern,

September 2017-March 2020

R&D department

Shanghai Shen Teng Technology Co., Ltd., Shanghai, China

Working on smart city related projects

PUBLICATIONS

Journal Papers:

- **Xu R**, Oksuz I. “Optimized K-Space Under-sampling for Brain MRI Reconstruction with Reinforcement Learning.” Pattern Recognition Letters (Q1; IF:3.9) Under Review
- Wang F, ...etc..**Xu R**, Oksuz I...etc., Towards Universal Learning-based Model for Cardiac Image Reconstruction: Summary of the CMRxRecon2024 Challenge. (**Top Journal: Nature Machine Intelligence; IF:23.9**) Under Review **Online**
- **Xu R**, Oksuz I. A Reinforcement Learning Approach for Optimized MRI Sampling with Region-Specific Fidelity. Neurocomputing (Q1, IF: 5.5), 2025. **Online Code**
- **Xu R**, Oksuz I. Segmentation-aware MRI subsampling for efficient cardiac MRI reconstruction with reinforcement learning. Image And Vision Computing (Q1, IF: 4.2), 2024. **Online**

Conference Papers:

- **Xu R**, Oksuz I. “HierAdaptMR: Cross-Center Cardiac MRI Reconstruction with Hierarchical Feature Adapters” (MICCAI 2025 CMRxRecon Challenge paper) Under Review
- **Xu R**, Oksuz I. “Adaptive k-space Radial Sampling for Cardiac MRI with Reinforcement Learning” (MICCAI 2025 STACOM Workshop) Accepted, Available online very soon
- **Xu R**, Özer C, Oksuz I. HyperCMR: Enhanced Multi-Contrast CMR Reconstruction with Eagle Loss. (MICCAI 2024 CMRxRecon Challenge paper). **Online Code Presentation**
- **Xu R**, Oksuz I. Efficient MRI reconstruction with reinforcement learning for automatic acquisition stopping. (MICCAI 2022, STACOM Workshop). **Online Presentation**

- **Xu R**, An J, Su L, Min X. Banknotes serial number coding recognition.” In 2019 IEEE International Conference on Big Data (Big Data), pp. 5101-5107. IEEE, 2019.
Online

HONORS and AWARDS

5th Place Award, CMRxRecon2024 Challenge (MICCAI)2024, Morocco **October 2024**
Certification

Full Ph.D. Scholarship, **March 2021-present**
Istanbul Technical University, Istanbul, Turkey

TOEFL score

- Score: 108 · Jan 2021, Reading:28, Listening:26, Speaking:24, Writing:30

REFERENCES

- Ilkay Oksuz
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Research Associate, King’s College London, Biomedical Engineering Department
E-mail: oksuzilkay@itu.edu.tr
- Cheng Jin
School of Computer Science, Shanghai Key Lab of Intelligent Information Processing,
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Innovation Center of Calligraphy and Painting Creation Technology, MCT, China,
Fudan University, Shanghai, China
E-mail: jc@fudan.edu.cn
- Xinli Min
Shanghai Energy saving Engineering and Technology Association (SESETA)
Shanghai Shen Teng Technology Co., Ltd.
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