Ruru Xu

 $Citizenship:\ Chinese$

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Personal webpage Google scholar page Updated: April 2025



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, my research interests centered on object detection and semantic segmentation, working under the guidance of Professor Cheng Jin.

In 2020, I received my Master's degree in Engineering Computer Software and Theory. I pursued my Master's studies at the SICT(Shanghai Institute of Computing Technology) from 2017 to 2020, with a research direction in computer vision. My professor is Xinli Min. During my Master's studies, I also interned at Shanghai Shen Teng Technology Co., Ltd. from 2017 to 2020. My work there involved contributing to smart city-related projects.

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

EDUCATION and RESEARCH EXPERIENCE

PhD Candidate, GPA: 3.43,

March 2021-present

Computer Engineering

Istanbul Technical University, Istanbul, Turkey

Exchange learning,
Lab of Interactive Media Computing

April 2018-March 2020

Fudan University, Shanghai, China

Master's Degree, GPA: 3.78,

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 Cleanli-

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Bachelor's degree, Computer Science and Technology Liaocheng University, Liaocheng, China September 2012-July 2016

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. "One article submitted to 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. (Submitted to Top Journal: TPAMI; IF:20.8), 2025. 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, Özer C, Oksuz I. HyperCMR: Enhanced Multi-Contrast CMR Reconstruction with Eagle Loss. (MICCAI 2024 -CMRxRecon2024 Challenge). 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**

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

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

TOEFL score

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

REFERENCES

• Ilkay Oksuz

Assoc. Prof., Istanbul Technical University, Computer Engineering Department 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, Fudan University, Shanghai, China

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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