



# Yurong Chen

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Homepage: <https://yurongchen1998.github.io>

Research area: Medical Imaging Processing;  
Probability Machine Learning

## Education

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- 2020.08 ~ Now      **Ph.D**
- **National Engineering Lab of Hunan University**
- 2019.08 ~ 2020.06      **Master of Science**
- **University of Pittsburgh**
  - GPA:3.68/4.0
  - Majored in Electrical & Computer Engineering
- 2015.09 ~ 2019.06      **Bachelor of Engineering**
- **Changsha University of Science & Technology**
  - Majored in Electrical & Information Engineering
  - CUST Academic Year 15-16/ 16-17/ 17-18 Third-Class Scholarship

## Publication

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- 2021.08    **Y. Chen**, H. Zhang, Y. Wang, et al. "Towards to Robust and Generalized Medical Image Segmentation Framework," **Submitted to *IEEE Trans. on Medical Imaging***, arXiv preprint arXiv:2108.03823.
- 2021.08    **Y. Chen**, H. Zhang, Y. Wang, et al. "P-WAE: Generalized Patch-Wasserstein Autoencoder for Anomaly Screening," **Submitted to *IEEE Trans. on Imaging Processing***, arXiv preprint arXiv:2108.03815, 2021.
- 2021.08    **Y. Chen**, H. Zhang, Y. Wang, et al. "D-BIN: A Generalized Disentangling Batch Instance Normalization for Domain Adaptation," in ***IEEE Trans. on Cybernetics***, accepted, 2021.
- 2021.07    H. Zhang, Y. Song, **Y. Chen\***, et al. "MRSDI-CNN: Multi-Model Rail Surface Defect Inspection System Based on Convolutional Neural Networks," in ***IEEE Transactions on Intelligent Transportation Systems***, 2021.
- 2020.11    **Y. Chen**, H. Zhang, Y. Wang, et al. "MAMA Net: Multi-Scale Attention Memory Autoencoder Network for Anomaly Detection," in ***IEEE Trans. on Medical Imaging***, vol. 40, no. 3, pp. 1032-1041, 2021.
- 2020.07    **Y. Chen**. "Graph-embedding Enhanced Attention Adversarial Autoencoder," ***University of Pittsburgh***, 2020.

2020.04    **Y. Chen** H. Tang, L. Guo, et al. "A Generalized Framework of Pathlength Associated Community Estimation for Brain Structural Network," *International Symposium on Biomedical Imaging (ISBI)*, pp. 288-291, 2020.

2019.12    J. C. Peven, **Y. Chen**, L. Guo, et al. "The oblique effect: The relationship between profiles of visuospatial preference, cognition, and brain connectomics in older adults," *Neuropsychologia*, vol. 135, pp.107236, 2019.

2019.06    H. Zhang, **Y. Chen\***, Y. Song, et al. "Automatic kidney lesion detection for CT images using morphological cascade convolutional neural networks," *IEEE Access*, vol. 7, pp. 83001-83011, 2019.

2019.02    Z. Xiong, H. Zhang, **Y. Chen**, "Deep Ensemble Learning Network for Kidney Lesion Detection," *Chinese Automation Congress (CAC)*, pp. 3841-3846, 2019.

## ***Academic Experiences***

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|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2021.06 ~ 2021.08 | <b>Research about Pre-training on Medical Imaging Segmentation</b> <ul style="list-style-type: none"><li>• Advisor: Prof. Hui Zhang, Yaonan Wang</li><li>• Place: Hunan University</li></ul>               |
| 2021.03 ~ 2021.05 | <b>Research about Chest X-ray/OCT Anomaly Screen</b> <ul style="list-style-type: none"><li>• Advisor: Prof. Hui Zhang, Yaonan Wang</li><li>• Place: Hunan University</li></ul>                             |
| 2020.11 ~ 2021.02 | <b>Research about Cells Image Classification via Domain Adaptation</b> <ul style="list-style-type: none"><li>• Advisor: Prof. Hui Zhang, Yaonan Wang</li><li>• Place: Hunan University</li></ul>           |
| 2020.06 ~ 2020.10 | <b>Research about Chest X-ray Anomaly Detection via Autoencoder</b> <ul style="list-style-type: none"><li>• Advisor: Prof. Hui Zhang, Yaonan Wang</li><li>• Place: Hunan University</li></ul>              |
| 2019.11 ~ 2020.02 | <b>Research about Community Detection via Graph Network</b> <ul style="list-style-type: none"><li>• Advisor: Assis. Prof. Liang Zhan, Prof. Heng Huang</li><li>• Place: University of Pittsburgh</li></ul> |
| 2019.08 ~ 2019.11 | <b>Research about Estimation Brain Structural Network</b> <ul style="list-style-type: none"><li>• Advisor: Assis. Prof. Liang Zhan, Prof. Heng Huang</li><li>• Place: University of Pittsburgh</li></ul>   |
| 2018.11 ~ 2019.06 | <b>Research about Kidney Lesion Detection</b> <ul style="list-style-type: none"><li>• Advisor: Prof. Hui Zhang</li><li>• Place: Changsha University of Science &amp; Technology</li></ul>                  |

- 2018.08 ~ 2019.04      **Research about Brain-computer Interface (BCI)**
- Advisor: Assis. Prof. Pengfei Wei
  - Place: Shenzhen Institutes of Advanced Technology Chinese Academy of Science
- 2017.04 ~ 2017.05      **Design of the Sweeping Robot based on the Raspberry Pi**
- Advisor: Prof. Yingjian Wang
  - Place: Changsha University of Science & Technology
- 2016.12 ~ 2017.03      **Design of the Traffic Lights Control System**
- Advisor: Lecturer Hongjiang Ma
  - Place: Changsha University of Science & Technology

### ***Extra-curricular Activities***

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- 2017.05 ~ 2018.12 **Team captain of CUST Swimming Team**
- 2015.12 ~ 2016.10 **Team captain of CUST Scientific Project Competition Team**
- 2015.10 ~ 2016.10 **Deputy Director of CUST Students Union Academic Department**