XIN WANG

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Education

2022.09 — Pres. **Ph.D.**, School of Computer Science, Fudan University, China
Supervisor: Prof. Xingjun Ma

2018.09 — 2021.07 **M.Phil.**, Faculty of Artificial Intelligence in Education, Central China Normal University, China
Supervisor: Prof. Qiusha Min

2014.09 — 2018.07 **B.Eng.**, Zhang Zhongjing College of Chinese Medicine, Nanyang Institute of Technology, China

Experiences

2022.06 — 2022.08 **Visiting Student**, Oxford Machine Learning Summer School, St Catherine's College, University of Oxford, UK
Topic: ML x Health

2021.07 — 2022.01 **A.I. Research Algorithm Engineer**, iFLYTEK, China
Topic: Federated Learning and Object Detection

2018.09 — 2021.07 **Teaching Assistant**, Central China Normal University Wollongong Joint Institute, Central China Normal University, China
Topic: CSCI924 Reasoning and Learning

2016.02 — 2016.07 **Exchange Student**, College of Science, Providence University, Taiwan
Supervisor: Prof. Cheng-Hsin Wang

Publications

[1] Qiusha Min, **Xin Wang**, Bo Huang, et al. Lossless medical image compression based on anatomical information and deep neural networks[J]. Biomedical Signal Processing and Control, 2022, 74: 103499.

[2] Qiusha Min*, **Xin Wang***, Bo Huang, et al. Web-Based Technology for Remote Viewing of Radiological Images: App Validation[J]. Journal of Medical Internet Research, 2020, 22(9): e16224. (IF: 5.43)

*these authors contributed equally

[3] Qiusha Min, **Xin Wang**. Remote medical image access system based on Java technology, Software copyright, 2019SR0982502

[4] Qiusha Min, **Xin Wang**. Remote medical image access system based on Flash technology, Software copyright, 2019SR0982505

[5] Qiusha Min, **Xin Wang**. Remote medical image access system based on HTML5 technology, Software copyright, 2019SR0982496

Projects

Research & Development Group, iFLYTEK
A.I. Research Algorithm Engineer **2021.07 — 2022.01**

- **Federated Learning and IDASH PRIVACY & SECURITY WORKSHOP 2021 - secure genome analysis competition (Track III: Confidential Computing):** Our team proposed the iFL platform, as the independently R&D federated learning platform, aiming to provide a secure computing framework to support the federated learning ecosystem. Moreover, our team, YYDS, is among the best-performing teams that participate in the iDash Privacy & Security Challenge Track 3: confidential computing. Simultaneously, I was invited to make a presentation at the iDASH workshop on October 30.

- **The 2021 iFLYTEK A.I. Developer Competition - Object Detection in X-ray Images:** In this project, our goal is to explore the best object detection models that can correctly classify prohibited objects in X-ray images and precisely locate all of those objects.

Faculty of Artificial Intelligence in Education, Central China Normal University
M.Phil. Student **2018.09 — 2021.07**

- **Deep Learning and Medical Image Compressions:** The recent research explore new methods for lossless compression of medical data, leveraging image segmentation and deep learning [1]. This technique first divides the medical image data into specific regions based on anatomical features, namely, image density, relative position, and organ size. A deep neural network is then trained to generate a series of optimal predictors for each region. Instead of relying on a global prediction model, the proposed technique would adaptively switch to an optimal predictor according to the characteristics of the region being compressed.
- **Medical Image Processing:** Different technologies (Oracle Java, Adobe Flash, and HTML5) are used to develop a web-based medical imaging application [2-5]. Simultaneously, this application connects to a medical image server and can provides several required functions for radiological interpretation, e.g. navigation, magnification, windowing, maximum intensity projection, fly-through, surface rendering, and volume rendering.

Selected Awards

- Outstanding Graduate Award of Central China Normal University, 2021. (Top 5%)
- Outstanding Master's Thesis Award of Central China Normal University, 2021. (Top 5%)

Skills

- Computing Skills: Python, MATLAB, Java, TensorFlow, Keras, PyTorch.
- Language: Chinese (native), English (fluent).
- Machine Learning (Coursera), Deep Learning (Coursera), AI for Medicine (Coursera), Object oriented programming-Java (MOOC).