Xin WU (吴欣)



wu1351658806@163.com | Homepage | Google Scholar | GitHub

No. 999, Xi'an Road, Pidu District, Chengdu City, Sichuan Province, China (611756)

🐗 Keep the passion for all research. Craftsmanship spirit, engineering mindset.

EDUCATION

Southwest Jiaotong University (PhD)

Sep 2024 - Present

- Computer Science and Technology
- Supervised by Prof. Fei Teng

Wuyi University (MEng)

Sep 2021 - June 2024

- Computer Technology, Average Score: 87.01/100.00 (Top 2% at WYU)
- Supervised by Prof. Yue Feng

Chongqing University of Education (BEng)

Sep 2016 - June 2020

Computer Science and Technology, GPA: 4.2/5.00 (Top 1% at CQUE)

PUBLICATIONS

- [1] Xin Wu, Yue Feng#, Hong Xu, Zhuosheng Lin, Tao Chen, Shengke Li, Shihan Qiu, Qichao Liu, Yuangang Ma, Shuangsheng Zhang. CTransCNN: Combining Transformer and CNN in Multilabel Medical Image Classification [J]. *Knowledge-Based Systems* (KBS), 2023, 281: 111030. (SCI 1Q, IF 8.8, Top, achieved paper acceptance in just over two months, Cited 73 times as of July 2025) [Project] [PDF] [Code]
- [2] Xin Wu, Yue Feng#, Hong Xu, Zhuosheng Lin, Shengke Li, Shihan Qiu, Qichao Liu, Yuangang Ma. CheXNet: Combing Transformer and CNN for Thorax Disease Diagnosis from Chest X-ray Images[C]//Chinese Conference on Pattern Recognition and Computer Vision (PRCV). Singapore: Springer Nature Singapore, 2023: 73-84. (CCF-C, Cited 3 times as of July 2025) [PDF] [Code]
- [3] Xin Wu, Hong Xu, Zhuosheng Lin, Shengke Li, Huilin Liu, Yue Feng#. Review of deep learning in classification of tongue image[J]. *Journal of Frontiers of Computer Science & Technology*, 2023, 17(2): 303. (Cited 27 times as of July 2025) [PDF]

Under Review

- [1] Xin Wu, Fei Teng#, Ji Zhang, Xingwang Li, Yuxuan Liang. An Energy-Guided Feature Disentanglement Framework for Out-of-Distribution Time Series Classification. ArXiv: 2508.14134. [PDF] [Code]
- [2] Xin Wu, Fei Teng#, Xingwang Li, Ji Zhang, Tianrui Li, Qiang Duan. Out-of-Distribution Generalization in Time Series: A Survey. ArXiv: 2503.13868. [Project] [PDF] [Code]
- [3] Xin Wu, Fei Teng#, Yue Feng, Kaibo Shi, Zhuosheng Lin, Ji Zhang. Exploring Partial Multi-Label Learning via Integrating Semantic Co-occurrence Knowledge. ArXiv: 2507.05992. [Project] [PDF] [Code]

^{*} Equal Contribution, # Corresponding Author

PATENS

- [1] Yue Feng, Xin Wu, Xu Hong, Tao Chen, Zhuosheng Lin, Yuangang Ma, Qichao Liu. CONSTITUTION MULTI-LABEL CLASSIFICATION METHOD, DEVICE AND MEDIUM. (Authorized, 2023/09475)
- [2] Yue Feng, Xin Wu, Xu Hong, Sufen Liang, Shengke Li, Jiajian Zhu, Qichao Liu, Yuangang Ma. Tongue diagnosis method, equipment and medium. (Accepted, CN202211131323.5)

RESEARCH EXPERIENCE

Application of Meta-Learning in Diagnosing the State of Five Zang Organs in Traditional Chinese Medicine, 2021 Guangdong Province Key Field Special Project (Natural Science) Supervisors: Prof. Yue Feng Sep. 2022- May. 2024

- **Description:** Developing a clinical database to digitize TCM's five Zang organs' characteristics, using AI for objective diagnostic methods and meta-learning algorithms.
- My Role: Research and implementation of TCM tongue diagnosis, while also assisting in facial and pulse diagnosis research, including image annotation, data preprocessing, model construction, and deployment.
- Achievements/Conclusions: Accumulated extensive practical experience. (Tongue diagnosis) AUC of 84.56%, overall F1 score of 84.12%, average F1 score per category of 64.32%, and model speed of 0.7s.

Intelligent TCM Research Intern (Jiangmen Central Hospital)

Supervisors: Prof. Yue Feng and Dr. Shuangsheng Zhang

Sep. 2022-July. 2023

- Collection and Annotation: Captured images of patients' tongues using a TCM tongue diagnosis device. Annotated the collected tongue diagnosis images using the LabelMe tool.
- **Augmentation:** Utilized OpenCV for rotation, translation, scaling, and flipping to expand the dataset and increase the diversity of image samples.
- **Segmentation:** Employed an attention pooling (MPA-Net) combined with FPN method, with the network model built on the MMSegmentation framework.
- **Results:** Achieved an accuracy of 99.84%.

SKILLS & SPECIALTY

Programming: Python (Good), Bash (Good), MATLAB, C++, JavaScript, CSS, Markdown. **Tools:** LaTeX, Git, Linux, Cloud, Docker, Conda, ORGIN.

Specialty: Playing basketball. (Championship of women's basketball at the 5th Ball Games of Chongqing University of Education in November 2017)

AWARDS & SERVICES

Third Prize (Top 5%) in the 2018 Microsoft "Innovation Cup" Global College Student Technology Competition, China Region (**Top 36 nationwide**).

Sep. 2018

Outstanding Award (Top 10%) in the Fourth "Internet+" Innovation and Entrepreneurship Competition, Chongqing.

Nov. 2018

Third Prize (Top 10%) in the "Chuang Qing Chun" College Student Innovation and Entrepreneurship Competition, Chongqing.

Aug. 2018