Futian Weng

CONTACT INFORMATION

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Xiamen, China

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RESEARCH INTERESTS

Applied Mathematics
Data Science
Trustworthy AI
Healthcare
FinTech

EDUCATION

School of Medicine, Xiamen University — Xiamen, China
Ph.D. in Health Big Data and Intelligent Medicine — Sep. 2021 - Jun. 2025
Thesis: Chronic Disease Surveillance and Care Optimization in Mobile Health Ecosystems
Advisor: Prof. Jianping Zhu

School of Mathematics & Statistics, Central South University — Changsha, China
Master. in Statistics — Sep. 2017 - Jun. 2020
Thesis: Research on Deep Learning Algorithms and Their Applications in Medical Imaging
Advisor: Prof. Muzhou Hou

School of Mathematics & Statistics, Central South University — Changsha, China
Bachelor. in Information & Computing Science — Sep. 2013 - Jun. 2017

HONORS AND AWARDS

Outstanding Graduate Student of Hunan Province — 2020
- Top 2% of all graduate students from Central South University

Mittal Outstanding Student Scholarship — 2020
- 2 students awarded per year among nearly 250 postgraduates in the school

Huawei Outstanding Student Scholarship — 2019
- 2 students awarded per year among nearly 250 postgraduates in the school

Mathematical Modeling Competition — 2018, 2019
- First prize of the National College Student Mathematical Modeling Competition
- Second prize of American College Students Data modeling Competition

PUBLICATIONS

Full article: [Google Scholar]

-Ma, Y., Meng, Y., Li, X., Fu, Y., Xu, Y., Lu, Y., & **Weng, F***. 2025. JaunENet: An effective non-invasive detection of multi-class jaundice deep learning method with limited labeled data. Applied Soft Computing, 112878. (SCI Q1, IF=7.2)[Web][Code]

-**Weng, F**., Zhu, M., Buckle, M., Hajek, P., & Abedin, M. Z. 2025. Class imbalance Bayesian model averaging for consumer loan default prediction: The role of soft credit information. Research in International Business and Finance, 74, 102722. (ABS 2*, SSCI Q1, IF=6.3) [Web]

-**Weng, F**., Cheng, D., Zhuang, M., Lu, X., & Yang, C. 2024. The effects of governance quality on renewable and nonrenewable energy consumption: An explainable decision frame. Journal of Forecasting, 43(6), 2146-2162. (ABS 2*, SSCI Q1, IF=3.4)[Web]

-Yang, C., Zhang, H., & **Weng, F***. 2024. Effects of COVID-19 vaccination programs on EU carbon

price forecasts: Evidence from explainable machine learning. International Review of Financial Analysis, 102537. (ABS 3*, SSCI Q1. IF=8.2) [Web]

-Su, M., Cheng, D., Xu, Y., & **Weng, F***. 2023. An improved BERT method for the evolution of network public opinion of major infectious diseases: Case Study of COVID-19. Expert Systems with Applications, 233, 120938. (SCI Q1, IF=8.668) [Web]

-Yang, C., Abedin, M. Z., Zhang, H., **Weng, F***., & Hajek, P. 2023. An interpretable system for predicting the impact of COVID-19 government interventions on stock market sectors. Annals of Operations Research, 1-28. (ABS 3*, SSCI Q1. IF=4.4) [Web]

-**Weng, F**., Zhu, J., Yang, C., Gao, W., & Zhang, H. 2022. Analysis of financial pressure impacts on the health care industry with an explainable machine learning method: China versus the USA. Expert Systems with Applications, 210, 118482. (SCI Q1, IF=8.668) [Web]

-**Weng, F**., Meng, Y., Lu, F., Wang, Y., Wang, W., Xu, L., & Zhu, J. 2022. Differentiation of intestinal tuberculosis and Crohn's disease through an explainable machine learning method. Scientific Reports, 12(1), 1714. (SCI Q1, IF=3.8) [Web]

Working papers

-**Weng, F**., Yang, C., Zhu, M. Default Behavior Portrait Based on Combination Feature Effect: Evidence from A Novel Class-Imbalance Learning Method.

-**Weng, F**., Su, M. An interval prediction framework integrating feature selection algorithm for infectious disease public opinion trend.

-**Weng, F**., Yang, C, Chen, J. Feeling is believing: Success prediction by modelling the emotional trajectories in entrepreneurial narration.

-**Weng, F**., Ma, Y., Xu, Y. Data-driven sampling ensembles analytics framework for epilepsy detection based on EEG signal.

-Zhen, C., Zhu, J., **Weng, F***. Credit scoring modeling based on an improved two-stage method with fragmentary data.

Patent

-**Weng, F**, Zhuang, M., Zhu, J. A video performance prediction method and system based on multimodal perspectives. ZL 2021 1 1544234.9.

-Xu, Y., Ma, Y., **Weng, F**. A method and system for category recognition and feature determination of skin state images. ZL 2022 1 0131708.5.

-Xu, Y., An, B., **Weng, F**., Wang, Y., Li, S. Abnormal behavior recognition method, system, and device based on class imbalance data. ZL 2023 1 1365953.3.

Projects

Humanities and Social Sciences Research Fund Project of the Ministry of Education
Natural language processing Methodology in Socio economic Statistics
22YJA910004, [Rank second] Jan. 2021 - Jan. 2025

Tian'an Cup College Student Innovation and Entrepreneurship Project
Research on the Application of Deep Learning in Medical Image Processing
TAB2019-07, [Rank first] Dec. 2019 - Dec. 2020

National Social Science Fund Major Projects

The transmission path and early warning monitoring of major infectious diseases
20&ZD137, [Core members] Dec. 2020 - Dec. 2024

Major Statistical Projects of the National Bureau of Statistics
Research on Big data technology methodology applicable to socio-economic statistics
20ZX20, [Core members] Dec. 2020 - Dec. 2022

Talks

2021 International Conference on Data Mining and Applications, Xiamen, China	Jul. 2021
2022 International Conference on Data Mining and Applications, Guilin, China	Nov. 2022
Central South University, Changsha, China	Nov. 2022
Ocean University of China, Qingdao, China	May. 2022
Beihang University, Beijing, China	Jun. 2023
National Quemoy University, Taiwan, China	Nov. 2024

Professional services

Regular Reviewer for Journals

- Annals of Operation Research
- International Review of Financial Analysis
- Expert Systems with Applications
- Journal of Forecasting
- Technology in Society
- Neurocomputing
- Financial Innovation
- Applied Intelligence
- Digital health
- Journal of Big Data
- Data in Brief
- International Journal of Data Science and Analytics

Membership

- Big Data Statistics Society - Chinese Association for Applied Statistics (BDSS-CAAS)

Languages

Mandarin, English

Technical Skills and Interests

- Statistical & Machine learning: Python, R
- Applications: LaTeX
- Interests: Photography