

Bingjie YAN(闫冰洁)

Trustworthy Federated Learning · AI for Healthcare · Edge Computing

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"Nothing is impossible."

Education

Institute of Computing Technology, Chinese Academy of Sciences

Beijing, China

Master of Engineering, Computer Science

2022.09 - Exp. 2025.06

- Research Areas: Asynchronous Federated Learning, Medical Application in FL.
- Advisor: Prof. Yiqiang Chen
- GPA: 87/100 (3.79/4)

School of Computer Science and Technology, Hainan University

Hainan, China

Bachelor of Engineering, Software Engineering for Big data

2018.09 - 2022.06

- GPA: 89.69/100 (3.67/4)
- "Three Good Students Awards" and "Outstanding Graduate Awards".
- Award the first-class comprehensive scholarship at Hainan University.

Publications

KAMOFLL: K-Asynchronous Multi-objective Federated Learning with Privacy, Efficiency, and Utility Trade-offs

Under Review

B. Yan, Y. Chen, Q. Chen, X. Jiang, Y. Kang and T. Zhang

FedEYE: A Scalable and Flexible End-to-end Federated Learning Platform for Ophthalmology

Cell Patterns (SCI, IF=6.5)

B. Yan, D. Cao, X. Jiang, Y. Chen, W. Dai, et al.

2024.02

AFL-CS: Asynchronous Federated Learning with Cosine Similarity-based Penalty Term and Aggregation

IEEE ICPADS 2024 (CCF-C)

B. Yan, X. Jiang, Y. Chen, C. Gao and X. Liu

2023.12, Oral.

Experiments of Federated Learning for COVID-19 Chest X-ray Images

ICAIS 2021 (EI)

B. Yan, J. Wang, J. Cheng, Y. Zhou, Y. Zhang, Y. Yang, L. Li, H. Zhao, C. Wang and B. Liu

2021.07

- **Over 150 citations in Google Scholar.**

An Improved Method for the Fitting and Prediction of the Number of COVID-19 Confirmed Cases Based on LSTM

Computers, Materials & Continua (SCI, JCR Q2)

B. Yan, J. Wang, Z. Zhen, X. Tang, Y. Zhou, G. Zheng, Q. Zou, Y. Lu, B. Liu, W. Tu and N. Xiong

2020.05

Experiences

Research Intern @ FedML

Remote

Object detection and medical application in Federated Learning

2022.06 - 2022.08

- Research on object detection and medical application in Federated Learning with MLDevOps.

Federated collaborative platform system for digital ophthalmology

Beijing, China

Subject with Aier Eye Hospital

2021.12 - 2023.06

- Researching the design of the federated learning platform and system for ophthalmology
- Implementing asynchronous federated learning methods on the platform for medical applications.

Honors & Rewards

International & National

2017	Silver , Asia-Pacific Informatics Olympiad, APIO	Beijing, China
2019	First Prize , The 3rd Silk Road Robotics Innovations Competiton	Xi'an, China
2020	Second Prize , Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM)	Beijing, China
2020	Second Prize , CCCC - Group Programming Ladder Tournament	China
2020	Second Prize , Chinese Collegiate Computing Competition	Beijing, China
2023	Sliver & Bronze , The China Internation College Students' "Internet+" Innovation and Entrepreneurship Competition	Beijing, China
2020	Third Prize , CCCC - Artificial Intelligence Innovation Contest	Hangzhou, China

Provincial

2020	First Prize , CCCC - Group Programming Ladder Tournament	Hainan, China
2020	Gold & Sliver , The 6th "Internet+" Innovation and Entrepreneurship Competition in Hainan	Hainan, China
2021	First Prize , Chinese Undergraduate Electronic Design Contest in Hainan	Hainan, China
2020	Second Prize , CCCC - Artificial Intelligence Innovation Contest in South China	Hainan, China

Services

IEEE Hainan University Branch

President, Student Membership

Hainan, China

2021.03 - 2022.06

Association of Robotics and Artificial Intelligence, Hainan University

Vice President, Co-Founder

Hainan, China

2020.07 - 2022.06

Skills & Interests

Language	Chinese(Native), English(Fluent, CET-6: 478, CET-4: 539)
Photography	Enjoy the life and capture the moments :)