

# Bingjie YAN(闫冰洁)

Federated Learning · AI for Healthcare · Trustworthy AI

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"Nothing is impossible."

## Education

### Institute of Computing Technology, Chinese Academy of Sciences

Master, Computer Science

Beijing, China

2022.09 - Exp. 2025.06

· GPA: 87/100 (3.79/4)

### School of Computer Science and Technology, Hainan University

Hainan, China

Undergraduate, Software Engineering for Big data

2018.09 - 2022.06

· GPA: 89.69/100 (3.67/4)

· Won the honorary title of "Three Good Students" and "Outstanding Graduate".

· Has won the first-class comprehensive scholarship in 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, T. Zhang

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

Cell Patterns (SCI, JCR Q1)

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

2024.02

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### 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

2023.12, Oral.

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### 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

2021.7

· First to apply federated learning to the identification and classification of COVID-19 medical images.

· **With over 150 citations in Google Scholar.**

### FedCM: A Real-time Contribution Measurement Method for Participants in Federated Learning

IJCNN 2021 (CCF-C)

B. Yan, B. Liu, L. Wang, Y. Zhou, Z. Liang, M. Liu and C. Xu

2021.7, Oral.

· Propose a method to evaluate and measure participant contributions in federated learning in real-time.

· This method is more sensitive to data quality and quantity than traditional methods.

## Experiences

### Research Intern @ FedML

Remote

Object Detection and Medical Application in Federated Learning

2022.06 - 2022.08

## Honors & Rewards

## International

2017 **Silver**, Asia-Pacific Informatics Olympiad, APIO

Beijing, China

## National

2019.9 **First prize**, The 3rd Silk Road Robotics Innovations Competiton

Xi'an

2020.11 **Second prize**, Contemporary Undergraduate Mathematical Contest in Modeling

China

2020.12 **Individual second prize**, CCCC - Group Programming Ladder Tournament

China

2020.12 **Third prize**, CCCC - Artificial Intelligence Innovation Contest

Hangzhou

2020.11 **Bronze**, The 6th China Internation College Students' 'Internet +' Innovation and Entrepreneurship Competition

China

## Provincial

2020.12 **Special award for Group**, CCCC - Group Programming Ladder Tournament

Hainan

2020.10 **Gold & Sliver**, The 6th "Internet+" Innovation and Entrepreneurship Competition in Hainan

Hainan

2021.5 **First prize**, Chinese Undergraduate Electronic Design Contest in Hainan

Hainan

2020.8 **Second prize**, CCCC - Artificial Intelligence Innovation Contest in South China

Hainan

2021.5 **Third prize**, The "Challenge Cup" College Students Extracurricular Science & Technology Work Contest in Hainan.

Hainan

## Skills & Interests

**Language** Chinese(Native), English(Fluent, CET-6: 478, CET-4: 539)

**Photography** Enjoy the life and capture the moments :)

## Leadership Experience

### The IEEE Hainan University Branch

Hainan, China

President

2021.03 - 2022.06

- Participation in frontier academic conferences.
- Receive advanced academic information.

### Association of Robotics and Artificial Intelligence, Hainan University

Hainan, China

Vice President, Co-Founder

2020.07 - 2022.06

- Learn about machine learning, and write academic papers.
- Organize group members to prepare and participate in competitions
- Conduct machine learning sharing lectures.