

Ziming, Dai

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EDUCATION

Tianjin University, China 09/2023 – 06/2026

- Master of Engineering in Electronic and Information Engineering (Expected) CGPA: 86.58/100

Supervisors: Prof. Xiaofei Wang & Associate Prof. Chao Qiu

- Core modules: Natural Language Processing, Software Architecture, Advanced Computer Vision, Big Data Theory and Algorithms, Data Analysis & Data Mining, Advanced Computer Architecture, Advanced Artificial Intelligence.

Tianjin University, China 09/2019 – 06/2023

- Bachelor of Engineering in Artificial Intelligence GPA: 90.26/100

- Thesis: Blockchain-based Group Federated Learning for Industrial Internet (Outstanding Undergraduate Graduation Thesis)

RESEARCH INTERESTS

- Distributed Learning, Computer Networks, Large Language Model

PUBLICATIONS & PATENTS

- **Ziming Dai**, Tuo Zhang, Fei Gao, Xiaofei Wang, Chao Qiu, Cheng Zhang, Wenyu Wang, Chengjie Zang, Stratos: An End-to-End Distillation Pipeline for Customized LLMs under Distributed Cloud Environments - Submitted to 2025 The 63rd Annual Meeting of the Association for Computational Linguistics (ACL) Industry Track, under review as of March 22, 2025.
- **Ziming Dai**, Chao Qiu, Fei Gao, Yunfeng Zhao, Xiaofei Wang, ACME: Adaptive Customization of Large Models via Distributed Systems. - Accepted by 2025 8th International Conference on Devices, Circuits and Systems (ICDCS) on March 27, 2025.
- 仇超; **戴子明**; 高菲; 赵云凤; 张赫; 王晓飞, “An Adaptive Method for Large Models in Heterogeneous Cloud-Edge-End Environments (一种在异构云边端场景下的大模型自适应方法),” China, CN119537966A, issued 2024.10.25.
- **Ziming Dai**, Yunfeng Zhao, Chao Qiu, Xiaofei Wang, Haipeng Yao, Dusit Niyato, Multi-Granularity Federated Learning by Graph-Partitioning. - Accepted by *IEEE Transactions on Cloud Computing (TCC)* on November 11, 2024.
- **戴子明**; 高莉莎; 仇超; 彭国政; 任晓旭; 王晓飞; 朱红; 项楠; 韩硕, “An Edge Computing System and Method Based on Multi-Granularity Group Federated Learning (一种基于多粒度群组联邦学习的边缘计算系统和方法),” China, CN117687782A, issued 2023.12.07.
- **Ziming Dai**, Yunfeng Zhao, Chao Qiu, Xiaofei Wang, F. Richard Yu, MG²FL: Multi-Granularity Grouping-Based Federated Learning in Green Edge Computing Systems. - Accepted by *IEEE Global Communications Conference (GLOBECOM 2023)* on August 01, 2023, the Oral Presentation has been accepted.
- Qiu Chao, Zheyuan Chen, Xiaoxu Ren, **Ziming Dai**, Cheng Zhang, and Xiaofei Wang, Almers-6G: AI-driven region-temporal resource provisioning for 6G immersive services. - Published in *IEEE Wireless Communications*, 30(3): 196-203, 2023.
- 王晓飞; 刘铸滔; **戴子明**; 仇超; 王梓蔚; 边高阳, “Blockchain-based Multi-level Risk Control System and Management Method (基于区块链的多层级风控系统及管控方法),” China, CN114626934A, issued 2022.02.08.

RESEARCH EXPERIENCE

- **Research on Key Technologies and Applications of Intelligent Edge Perception for Transmission Line Faults** 01/2023 - 12/2024

Advisor: Associate Prof. Chao Qiu, College of Intelligence and Computing, Tianjin University

- Responsible for optimizing the aggregation methods in federated learning, proposed an innovative approach that integrates cross-granularity distillation with credit-based aggregation mechanisms;
- Successfully deployed the proposed method on the YoloV5 to classify and identify fault images in power transmission lines;
- This project resulted in the publication of two research papers and the filing of one patent.

- **Blue Noise Sampling Algorithm Based on Disk Packing and Its Application in Digital Stippling** 10/2022 - 09/2023

Advisor: Prof. Jiawan Zhang, College of Intelligence and Computing, Tianjin University

- Conducted research on blue noise sampling techniques and contributed to the development and implementation of a method for applying blue noise sampling in pointillism rendering;
- The project was successfully completed as part of the National College Student Innovation and Entrepreneurship Training Program.

- **Blockchain-Based Multi-Level Credit Card Risk Control System** 10/2021 - 10/2022

Advisor: Prof. Xiaofei Wang, College of Intelligence and Computing, Tianjin University

- Responsible for building a blockchain-based federated learning framework, writing smart contracts, and developing the backend using Python. Successfully implemented a complete credit card risk control system deployed on the blockchain;
- Gained a solid understanding of backend development practices and smart contract programming;
- This project received multiple awards in various competitions, including the "Gold Award" at the China College Students' "Internet+" Innovation and Entrepreneurship Competition, and resulted in a patent.

PROFESSIONAL EXPERIENCE

- **Algorithm Engineer Intern**, Beijing Wenge Technology Co., Ltd. 05/2022 - 07/2022

- Conducted research on and implemented advanced techniques in Named Entity Recognition (NER), and adapting them to low-resource languages with limited data
- Served as team leader, effectively coordinating team efforts by dividing responsibilities into two modules, pre-training models and language enhancement

EXTRACURRICULAR ACTIVITIES

- **Leader** of the iOS Development Team at TwT Studio, Tianjin University 09/2019 - 07/2022

- Developed a comprehensive iOS service app used by over **38,000** students at the university, featuring functionalities such as course schedule viewing, GPA tracking, and study room reservations, etc.;
- Arranged instruments for the rock band's performance;
- Developed a BBS platform for Tianjin University to facilitate student communication and discussion;
- Maintained and updated the application regularly.

- **Volunteer** in Tianjin University Youth Volunteers Association 09/2019 - 07/2022

- Participated in Tianjin's blood donation volunteer training and volunteered multiple times in blood donation activities;
- Volunteered multiple times at nursing homes to engage in community service activities.

- **Vice Minister** of Tianjin University Student Union 09/2019 - 07/2022

- Responsible for planning and organizing university events, as well as securing sponsorships and external partnerships to support student activities .

AWARDS & HONORS

- 2024, **Merit Student** of Tianjin University
- 2024, **Second Prize for Academic Scholarship** of Tianjin University
- 2023, **Excellent Graduates** of Tianjin University
- 2023, **Gold Award** of China College Students' 'Internet' Innovation and Entrepreneurship Competition-Tianjin
- 2022, **Silver Award** of China College Students' 'Internet' Innovation and Entrepreneurship Competition-Tianjin
- 2022, **Top Ten** of Shenzhen International Science and Technology Finance Competition
- 2022, **Second Prize** of 'Spark Cup' Blockchain Application Competition - Northern Region
- 2022, **Meritorious Winner** of Mathematical Contest In Modeling
- 2021, **Excellence Award** of China Blockchain Development Competition - Northern Region
- 2021, **Fourth Place** of Shenzhen International Science and Technology Finance Competition
- 2021, **Merit Student** of Tianjin University
- 2020, **Excellent Student Cadre** of Tianjin University
- 2020, **University-Level Outstanding Practice Team** of Tianjin University
- 2019, **Merit Student** of Tianjin University

SKILLS

- **Languages:** Mandarin (native), English(proficient): TOEFL 103
- **Technical Skills:** Python, Golang, C#, Swift
- **Hobbies:** Swimming