Chenru Wang

Homepage: Chenru Wang's HomePage | Email: winterccccc@gmail.com

Education

Ocean University of China *Shandong, China*

Bachelor of Mathematics and Applied Mathematics *Sept.2021 – Jun.2025*

- Overall GPA: 3.2/4(82.9/100)
- Rank: 9/49

Core Courses:
Real Analysis(92), Optimization(96), Time Series Analysis(95), Ordinary Differential Equations(88), Partial Differential Equation(87), Bioinformatics(91), Python(98), MATLAB Programming(98)

Research Interests

Generative Models, Trustworthy Machine Learning, Optimization Algorithms, Computational Neuroscience.

Publications

[1] **Wang, C.**, Chen, Y., Yang, Z., Zhou, T., Zhang, C. (2025). IMS3: Breaking Distributional Aggregation in Diffusion-Based Dataset Distillation. (Submitted).

[2] **Wang, C.**, Zhu, B., Zhang, C. (2026). PMI: Flow-Based Inversion Correction via Proximal Operator. *The Fourteenth International Conference on Learning Representations* (**ICLR**).

[3] **Wang, C.**, Chen, Z., Li, M., Yin, H., Zhou, S., Zhang, J., Zeng, X., Zhang, Q. (2025). DDUM: Deformable Dilated U-structure Module for Coronary Stenosis Detection. *Medical Engineering & Physics*.

Research Experience

Research on attack method in generative models *Nov.2025 – Present*

Remote Research Assistant, Virginia Tech *Advisor: Shengwei An*

- Developed a robust fine-tuning–based adversarial attack method for diffusion models, designed to consistently degrade generation quality across different baseline models and sampling settings.

Research on dataset distillation and dataset generation *Jul.2025 – Present*

Research Assistant, AGI Lab, Westlake University *Advisor: Chi Zhang*

- Developed a inversion-based fine-tuning method for dataset distillation and dataset generation.
- Developed a cluster-based group sampling method for distilled data sampling.

Research on inversion and editing techniques in generative models *Apr.2025 – Aug.2025*

Research Assistant, AGI Lab, Westlake University *Advisor: Chi Zhang*

- Developed two plug-and-play velocity correction methods to improve inversion stability and editing fidelity in flow-based generative models.
- Achieved state-of-the-art results on PIE-Bench; **first-author paper is accepted by ICLR26.**

Research on detection of stenosis of coronary arteries *Jun.2023 – Apr.2024*

Undergraduate Research Assistant, Ocean University of China *Advisor: Xueying Zeng*

- Applied deep learning techniques to assist physicians in diagnosing coronary artery disease and to reduce diagnostic errors caused by subjective judgment.
- Proposed the Deformable Dilatable U-structure Module to specialize generic networks for coronary stenosis detection and improve their generalization ability.
- Constructed a more complex and representative dataset, the 302 dataset, to evaluate and enhance the model's generalization performance in real-world clinical scenarios.

Research on enhancement of cardiac coronary angiography images *Nov.2022 – Sept.2023*

Undergraduate Research Assistant, Ocean University of China *Advisor: Xueying Zeng*

- Explored various methods for denoising and enhancing coronary angiography images, and proposed a novel hybrid approach to improve image quality.
- Developed a new super-resolution reconstruction method by integrating deep learning-based techniques with traditional image processing approaches.

Skills

Programming Language: Python(Pytorch, Opencv, Scikit-learn,etc), C/C++, Matlab, R
Professional Software: LaTex, Lingo, Mathtype, Mathematica, SPSS
Language: English(IELTS - 6.5), Japanese

Awards

The Third Prize Scholarship, Ocean University of China(2023 & 2024)
Honorable Mention, Mathematical Contest in Modeling(2023 & 2024)
Outstanding Student, Ocean University of China(2024)
Outstanding Graduates, Ocean University of China(2025)

Services

Conference Review: AAAI 2026, CVPR 2026, ICML26