Jieke (Jack) Wu

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EDUCATION

University of Science and Technology of China, Hefei, China 08/2021 – 06/2025 (expected)

B.S. in Biological Technology, School of Life Sciences

- GPA: 3.40/4.30, Rank: 29/91
- Core Courses: Linear Algebra B1 (90/100), Electromagnetism B (90/100), Undergraduate Research Project (A+), Undergraduate Innovation and Entrepreneurship Training Program (A+)

PUBLICATIONS

- **Jieke Wu**, Wei Huang, Mingyuan Bai, Xiaoling Hu, Yi Duan, Wuyang Chen. "Training-free Design of Augmentations with Data-centric Principles." *ICML 2024 Workshop AI4Science*.
- Tinghui Wu, **Jieke Wu**, Wuyang Chen, Zijun Zhang "Training-free Design of Deep Networks as Ensembles of Clinical Experts" *under submission*

ACADEMIC PROJECTS

Training-free Design of Deep Networks Research Assistant

Cedars-Sinai Medical Center, Dr. Zijun Zhang
UC Berkeley, Dr. Wuyang Chen 08/2024 – president

- Developed TEACUP: training-free framework for clinical AI network evaluation.
- Reduced computational costs by 90% while improving clinical task performance.
- Implemented ensemble modeling for robust predictions and uncertainty quantification.

Hierarchical Transformer for Genomics Research Assistant

Cedars-Sinai Medical Center, Dr. Zijun Zhang
UC Berkeley, Dr. Wuyang Chen 03/2024 – 08/2024

- Investigated hidden patterns in DNA sequences using deep learning techniques.
- Improved model performance by integrating global and local DNA sequence information.

Training-free Data-centric Augmentations Research Assistant

UC Berkeley, Dr. Wuyang Chen 06/2023 – 02/2024

- Developed metrics for data quality evaluation based on deep learning theory.
- Introduced training-free data augmentation design, reducing computational costs.
- Improved medical image segmentation performance across multiple datasets.

Isolation of Bacteriophages Targeting Gut Bacteria Research Assistant

University of Science and Technology of China, Prof. Yi Duan 01/2023 – 05/2024

- Improved *A. muciniphila* culture system, eliminating *C. acnes* contamination.
- Isolated Akk-targeting phages from wastewater for gut microbiome library.

Biodegradable Needles for Transdermal Delivery Research Assistant

Suzhou Institute for Advanced Research, Prof. Xiaorong Xu 11/2022 – 09/2023

- Simulated finite elements using COMSOL and Abaqus.
- Optimized long microneedles for deep tissue infection treatment.
- Developed novel injection molding for complex microneedle structures.

AWARDS

- Outstanding School-Level Project: Undergraduate Innovation and Entrepreneurship Training Program 2024
- Outstanding School-Level Project: College Student Research Program 2023
- 8th National University Life Science Competition, A Prize 2023
- Outstanding Undergraduate Scholarship 2024, 2023, 2022, 2021

SKILLS

Programming Languages: Python, C/C++, Matlab
Tools and Frameworks: Huggingface, PyTorch Lighting, PyTorch, Git, LaTeX