YANJIE TONG

Atlanta, GA

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EDUCATION

Georgia Institute of Technology, Atlanta, GA

Aug. 2024 - Now

Ph.D. in Computational Science and Engineering

Advisor: Peng Chen, GPA: 4.00/4.00

Tsinghua University, Beijing, China

Sep. 2020 – Jun. 2024

B.S. in Mathematics and Physics and B.Eng. in Energy and Power Engineering

GPA: 3.89/4.00 (Top 6/44)

RESEARCH EXPERIENCE

Georgia Institute of Technology, Atlanta, GA

Aug. 2024 – Now

Graduate Research Assistant, SciML & UQ Lab

- Developing a novel model based on recurrent neural networks and neural fields to predict complex spatiotemporal dynamics from sparse sensor observations.
- Collaborating with domain experts to address the challenge of real-time flooding prediction.
- · Benchmarked state-of-the-art models, such as Latent Dynamics Networks, in learning parametric dynamical systems.

Tsinghua University, Beijing, China

Sep. 2022 - Jun. 2024

Undergraduate Research Assistant

- Published 2 peer-reviewed papers as first-author and co-author in top-tier journals.
- Led an undergraduate team working on a machine-learning-based surrogate model for a gas turbine.
- Applied Gaussian process subspace regression and hyper-reduction methods to nonlinear fluid dynamics problems.

TEACHING AND ACADEMIC SERVICES

TA for Modeling and Simulation (CSE 6730)

TA for Machine Learning (CS 7641)

Reviewer for Journal of Computational Physics

2025 Spring, Fall
2025 Summer

LEADERSHIP EXPERIENCE

Harvard Summit for Young Leaders in China (HSYLC), Beijing, China

Aug. 2023

Chinese Seminar Leader

- Designed and delivered a week-long bilingual seminar on Data Science Thinking Mode and Power Engineering Applications.
- Instructed 50+ talented high school students in Capstone Projects concerning Data Science.

PUBLICATIONS

- 1. **Yanjie Tong**, Qingzhou Lu, Siyu Ding, Xingjian Wang. "A parametric reduced-order model based on tensor decomposition for unstructured mesh data." *Journal of Computational Physics*, Vol. 541, 2025, 114300.
- Mingshuo Zhou, Ruiye Zuo, Chih-Li Sung, Yanjie Tong, Xingjian Wang. "Region-optimal Gaussian process surrogate model via Dirichlet process for cold-flow and combustion emulations." Computer Methods in Applied Mechanics and Engineering, Vol. 439, 2025, 117894.

AWARDS AND SCHOLARSHIPS

• The Chinese Mathematics Competitions (CMC) Final, First Prize, National 3rd Place

2023

• Alibaba Global Mathematics Competition, Finalist

2022

• Scholarship of Academic Excellence, Tsinghua University

2021 & 2022

TECHNICAL SKILLS

Programming Language Python (PyTorch), C++, MATLAB, R, Java

Tool and Software Git, Linux, LaTeX, MySQL, AutoCAD, SolidWorks, Ansys Fluent

Language Chinese (Native), English (Fluent)