

YANJIE TONG

Atlanta, GA

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EDUCATION

Georgia Institute of Technology

Aug. 2024 – Now

Ph.D. in Computational Science and Engineering

Advisor: Peng Chen, GPA: 4.00/4.00

Tsinghua University

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)

Relevant Courses: Calculus (A); Linear Algebra (A-); Fundamentals of Physics (A); Numerical Analysis (A-); Mathematical Physics Equations (A); Probability and Stochastic Processes (A); Statistical Inference (A); Linear Regression Analysis (A); Multivariate Statistical Analysis (A-); Engineering Mechanics (A+); Fluid Mechanics (A); Fundamentals of Control Engineering (A-)

PUBLICATIONS

1. 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.
2. **Yanjie Tong**, Qingzhou Lu, Siyu Ding, Xingjian Wang. “A parametric reduced-order model based on tensor decomposition for unstructured mesh data.” Under Review at *Journal of Computational Physics*.

OTHER RESEARCH EXPERIENCES

Gaussian Process Subspace Prediction for Nonlinear Model Reduction

Sep. 2022 – Sep. 2023

Advisor: Xingjian Wang, Associate Professor, Department of Energy and Power Engineering, Tsinghua University & Ruda Zhang, Assistant Professor, the Uncertainty Quantification Lab, University of Houston

- Compared reduced-order models and hyperreduction methods for nonlinear flow field problems, and applied Gaussian Process Subspace Regression to predict POD basis over the parameter space.

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

TEACHING AND ACADEMIC SERVICES

TA for Machine Learning (CS 7641)

2025 Summer

TA for Modeling and Simulation (CSE 6730)

2025 Spring

Reviewer for *Journal of Computational Physics*

2025

EXTRACURRICULAR ACTIVITIES

Harvard Summit for Young Leaders in China (HSYLC)

Aug. 2023

Chinese Seminar Leader

Beijing, China

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

TECHNICAL SKILLS

Programming Language

Python, C++, Matlab, R, Java

Tool and Software

Git, Linux, MySQL, AutoCAD, SolidWorks, Ansys

Language

Chinese (Native), English (Fluent)