YONG LIU

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Homepage: https://wenweithu.github.io/

Google Scholar (Citation 3.8k+) ♦ GitHub (Stars 10k+) ♦ ORCID

EDUCATION

Ph.D. in Software Engineering

School of Software, Tsinghua University

Beijing, China Advisor: Prof. Mingsheng Long

Bachelor in Software Engineering, Tsinghua University

School of Software, Tsinghua University

GPA: 3.63/4.0 Rank: 2/84

Bachelor in Economics, Tsinghua University (Second Degree)

School of Economics and Management, Tsinghua University

Beijing, China

Beijing, China

Beijing, China

RESEARCH INTERESTS

My research interests cover **Deep Learning** and **Time Series Analysis**. I am currently working on time series foundation models and MLSys for time series. In addition to pure research, I dedicate myself to promoting research on valuable real-world applications. My research aims to contribute to the advancement of intelligent systems capable of handling massive and complicated temporal data across domains, including finance, healthcare, industry, and environment.

SELECTED PUBLICATIONS AND PREPRINTS

Sundial: A Family of Highly Capable Time Series Foundation Models Yong Liu*, Guo Qin*, Zhiyuan Shi, Zhi Chen, Caiyin Yang, Xiangdong Huang, Jianmin Wang, Mingsheng Long# (ICML Spotlight)
Timer-XL: Long-Context Transformers for Unified Time Series Forecasting Yong Liu*, Guo Qin*, Xiangdong Huang, Jianmin Wang, Mingsheng Long# [KungingFace]
Timer: Generative Pre-trained Transformers Are Large Time Series Models ICML 2024 Yong Liu*, Haoran Zhang*, Chenyu Li*, Xiangdong Huang, Jianmin Wang, Mingsheng Long#
iTransformer: Inverted Transformers Are Effective for Time Series Forecasting ICLR 2024 Yong Liu*, Tengge Hu*, Haoran Zhang*, Haixu Wu, Shiyu Wang, Lintao Ma, Mingsheng Long# - Deployed in Ant Group (Outstanding Projects of CCF Fund) (ICLR Spotlight, Cite 1000+)
AutoTimes: Autoregressive Time Series Forecasters via Large Language Models Yong Liu*, Guo Qin*, Xiangdong Huang, Jianmin Wang, Mingsheng Long#
TimesNet: Temporal 2D-Variation Modeling for General Time Series Analysis ICLR 2023 Haiwu Wu*, Tengge Hu*, Yong Liu*, Hang Zhou, Jianmin Wang, Mingsheng Long# (Cite 1400+)
Koopa: Learning Non-stationary Time Series Dynamics with Koopman Predictors Yong Liu*, Chenyu Li*, Jianmin Wang, Mingsheng Long# NeurIPS 2023 (Cite 100+)
Non-stationary Transformers: Exploring the Stationarity in Time Series Forecasting NeurIPS 2022 Yong Liu*, Haiwu Wu*, Jianmin Wang, Mingsheng Long# (Github Stars 500+, Cite 600+)
Ranking and Tuning Pre-trained Models: A New Paradigm for Exploiting Model Hubs JMLR 2022

Kaichao You*, Yong Liu*, Ziyang Zhang, Jianmin Wang, Michael I. Jordan, Mingsheng Long#

ICML 2021

(Cite 200+)

LogME: Practical Assessment of Pre-trained Models for Transfer Learning

Kaichao You*, Yong Liu*, Jianmin Wang, Mingsheng Long#

APPLICATIONS AND PROJECTS

• Huawei Scholarship, Tsinghua University

Algorithm Development and Package	
• Time-Series-Library: Deep Models for Time Series Analysis (GitHub Stars 8k+	-) Co-Author
• OpenLTM: Open Codebase for Developing Large Time-Series Models	Maintainer
• Transfer-Learning-Library: Algorithms for Transfer Learning (GitHub Stars 3k+	-) Committee
Open-Source Models for Time Series	
• $iTransformer$: Multidimensional Time Series Forecaster (GitHub Stars 1.6k +)	Maintainer
• Timer, Sundial: Time Series Foundation Models (HuggingFace Collection)	Maintainer
• AutoTimes: Large Language Models for Time Series Forecasting	Maintainer
\bullet $Non-stationary\ Transformers:$ Transformers for Non-Stationary Forecasting	Maintainer
Systems and Applications	
• Apache IoTDB - AINode: Native AI Analysis in Time Series Database	Project Leader
• <i>iTransformer</i> : Green Computing of Ant Group [Certificate] [Certificate]	First Author
INVITED TALKS	
• Exploring Large Models for Time Series at IoA, CAS. [Slides]	June 20, 2024
• Deep Learning for Time Series Applications at DoA, THU. [Slides]	May 25, 2024
• Large Models for Native Database Analysis at TPCTC 2024. [PDF]	Aug 30, 2024
SERVICES AND EXPERIENCES	
Reviewer & PC Member	
• International Conference on Learning Representations (ICLR)	2024-2025
• International Conference on Machine Learning (ICML)	2022-2025
• Conference on Neural Information Processing Systems (NeurIPS)	2023-2025
Teaching Experiences	
• TA, Database System of Prof. Jianmin Wang	Spring 2024
• TA, Machine Learning of Prof. Mingsheng Long	Fall 2021-2023
• TA, Deep Learning of Prof. Mingsheng Long	Fall 2021-2022
• TA, Introduction to Artificial Intelligence of Prof. Mingsheng Long Sp	oring 2021-2022
SELECTED AWARDS	
Outstanding Papers of Beijing [Certificate]	2021
• Outstanding Graduates of Beijing [Certificate]	2021
• Excellent Graduates of Tsinghua [Certificate]	2021
• Future Scholar Scholarship, Tsinghua University	2021
• Boeing Scholarship, Tsinghua University	2020
• Tang Lixin Scholarship, Tsinghua University	2020
• Jiang Nanxiang Scholarship, Tsinghua University	2019

2018