YONG LIU

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

Google Scholar (Citation 2.6k+) ♦ GitHub ♦ 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

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RESEARCH INTERESTS

My research interests cover **Deep Learning** and **Time Series Analysis**. I am currently working on time series foundation models, domain-specific time series models, and multi-modal models. In addition to pure research, I also 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#

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

Yong Liu*, Tengge Hu*, Haoran Zhang*, Haixu Wu, Shiyu Wang, Lintao Ma, Mingsheng Long#

Deployed in Ant Group (CCF Fund)

(Github Stars 1.4k+, ICLR Spotlight, Cite 600+)

AutoTimes: Autoregressive Time Series Forecasters via Large Language Models

Yong Liu*, Guo Qin*, Xiangdong Huang, Jianmin Wang, Mingsheng Long#

Deep Time Series Models: A Comprehensive Survey and Benchmark
Yuxuan Wang*, Haixu Wu*, Jiaxiang Dong, Yong Liu, Mingsheng Long, Jianmin Wang#

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 1000+)

Koopa: Learning Non-stationary Time Series Dynamics with Koopman Predictors NeurIPS 2023 Yong Liu*, Chenyu Li*, Jianmin Wang, Mingsheng Long#

Non-stationary Transformers: Exploring the Stationarity in Time Series Forecasting NeurIPS 2022 Yong Liu*, Haiwu Wu*, Jianmin Wang, Mingsheng Long# (Github Stars 500+, Cite 500+)

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#

LogME: Practical Assessment of Pre-trained Models for Transfer Learning
Kaichao You*, Yong Liu*, Jianmin Wang, Mingsheng Long#

(Cite 200+)

APPLICATIONS AND PROJECTS

• Huawei Scholarship, Tsinghua University

Algorithm Development and Package	
• Time-Series-Library: Deep Models for Time Series Analysis (GitHub Stars 7k-	\vdash) Co-Author
\bullet $\mathit{OpenLTM}\!:$ Open Codebase of the Architecture of Large Time-Series Models	Maintainer
• Transfer-Learning-Library: Algorithms for Transfer Learning (GitHub Stars 3k-	\vdash) Committer
Open-Source Models for Time Series	
• $iTransformer$: Multidimensional Time Series Forecaster (GitHub Stars 1.4k+)	Maintainer
• Timer, Timer-XL: Pre-Trained Large Time-Series Models (GitHub Stars 400+	-) Maintainer
\bullet $AutoTimes:$ Large Language Models for Time Series Forecasting	Maintainer
\bullet $Non\textsubstitute{-stationary}$ $Transformers:$ 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 1] [Certificate 2]	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)	2022-2024
• 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
ullet TA, Introduction to Artificial Intelligence of Prof. Mingsheng Long	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