YONG LIU

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

Google Scholar (Citation 2.6k+) ⋄ **GitHub** ⋄ **ORCID**

EDUCATION

Ph.D. in Software Engineering *Aug. 2021 – Present*
School of Software, Tsinghua University Beijing, China
Advisor: Prof. Mingsheng Long

Bachelor in Software Engineering, Tsinghua University *Aug. 2017 – July 2021*
School of Software, Tsinghua University Beijing, China
GPA: 3.63/4.0 Rank: 2/84

Bachelor in Economics, Tsinghua University (*Second Degree*) *Aug. 2018 – July 2021*
School of Economics and Management, Tsinghua University Beijing, China

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 **arXiv 2025**
Yong Liu*, Guo Qin*, Zhiyuan Shi, Zhi Chen, Caiyin Yang, (Intro.)
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 **ICLR 2024**
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+**)

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+**)

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+**)

AutoTimes: Autoregressive Time Series Forecasters via Large Language Models **NeurIPS 2024**
Yong Liu*, Guo Qin*, Xiangdong Huang, Jianmin Wang, Mingsheng Long#

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

Deep Time Series Models: A Comprehensive Survey and Benchmark **TPAMI 2024**
Yuxuan Wang*, Haixu Wu*, Jiaxiang Dong, **Yong Liu**, Mingsheng Long, Jianmin Wang#

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 **ICML 2021**
Kaichao You*, **Yong Liu***, Jianmin Wang, Mingsheng Long# (**Cite 200+**)

APPLICATIONS AND PROJECTS

Algorithm Development and Package

- *Time-Series-Library*: Deep Models for Time Series Analysis (**GitHub Stars 7k+**)   *Co-Author*
- *Transfer-Learning-Library*: Algorithms for Tranfer Learning (**GitHub Stars 3k+**)   *Committer*

Open-Source Models for Time Series

- *iTransformer*: Multivariate Time Series Forecaster (**GitHub Stars 1.4k+**)   *Maintainer*
- *Timer*: Large Time-Series Model for Time Series Analysis (**GitHub Stars 400+**)   *Maintainer*
- *Non-stationary Transformers*: Transformers for Non-Stationary Forecasting   *Maintainer*
- *Koopa*: Theory-Inspired Efficient Forecaster for Non-Stationary Time Series   *Maintainer*
- *OpenLTM*: Open Codebase of the Architecture of Large Time-Series Models   *Maintainer*

Systems and Applications

- *Apache IoTDB - AINode*: **Native AI Analysis in Time Series Database**   *Project Leader*
- *iTransformer*: 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*
- TA, Introduction to Artificial Intelligence of Prof. Mingsheng Long   *Spring 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*
- Huawei Scholarship, Tsinghua University   *2018*