YONG LIU

Email: liuyong21@mails.tsinghua.edu.cn
Homepage: https://wenweithu.github.io/
Google Scholar (**Citations 4k+**) ◇ GitHub (**Stars 10k+**) ◇ 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 and MLSys. In addition to pure research, I dedicate myself to promoting research on 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

Sundial: A Family of Highly Capable Time Series Foundation Models **ICML 2025**
Yong Liu*, Guo Qin*, Zhiyuan Shi, Zhi Chen, Caiyin Yang,
Xiangdong Huang, Jianmin Wang, Mingsheng Long# ***Oral Paper***

Timer-XL: Long-Context Transformers for Unified Time Series Forecasting **ICLR 2025**
Yong Liu*, Guo Qin*, 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#
– *Deployed in Apache IoTDB (Built-in Large Time-Series Model)*

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)* ***Spotlight Paper***

AutoTimes: Autoregressive Time Series Forecasters via Large Language Models **NeurIPS 2024**
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#

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#

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#

APPLICATIONS AND PROJECTS

Algorithm Development and Package

- *Time-Series-Library*: Deep Models for Time Series Analysis (**Stars 9k+**) — *Co-Author*
- *OpenLTM*: Open Codebase for Developing Large Time-Series Models — *Maintainer*
- *Transfer-Learning-Library*: Algorithms for Tranfer Learning (**Stars 3k+**) — *Committer*

Open-Source Models for Time Series

- *iTransformer*: Multidimensional Time Series Forecaster (**Stars 1.6k+**) — *Maintainer*
- *Timer*, *Sundial*: Time Series Foundation Models (**HuggingFace**) — *Maintainer*
- *AutoTimes*: Large Language Models for Time Series Forecasting — *Maintainer*
- *Non-stationary Transformers*: Transformers for Non-Stationary Forecasting — *Maintainer*

Systems and Applications

- *Apache IoTDB - AINode*: Native AI Analysis in Database — *Project Leader*
- *iTransformer*: Green Computing of Ant Group (**Deployment**) — *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 — *Spring 2021-2022*

SELECTED AWARDS

- Outstanding Papers of Beijing — *2021*
- Outstanding Graduates of Beijing — *2021*
- Excellent Graduates, Tsinghua University — *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*