

# YONG LIU

Email: [liuyong21@mails.tsinghua.edu.cn](mailto:liuyong21@mails.tsinghua.edu.cn)

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

[Google Scholar](#) ◊ [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 **Time Series Analysis** and **Deep Learning**. I am currently working on foundation time series models, large time series models, and multi-modal time series 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.

## PUBLICATIONS AND PREPRINTS

---

- AutoTimes: Autoregressive Time Series Forecasters via Large Language Models* NeurIPS 2024  
**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#
- 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 and Huawei Cloud ([Github Stars 1k+](#), [Spotlight Paper](#), [Cite 210+](#))
- 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 450+](#), [Cite 300+](#))
- 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 500+](#))
- TimeXer: Empowering Transformers for Time Series Forecasting with Exogenous Variables*  
Yuxuan Wang\*, Haixu Wu\*, Jiaxiang Dong, **Yong Liu**, Yunzhong Qiu, Haoran Zhang, Jianmin Wang, Mingsheng Long# NeurIPS 2024
- 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 170+](#))
- Deep Time Series Models: A Comprehensive Survey and Benchmark* arXiv Preprint 2024  
Yuxuan Wang\*, Haixu Wu\*, Jiaxiang Dong, **Yong Liu**, Mingsheng Long, Jianmin Wang#

---

\* Equal Contribution, # Corresponding Author

## APPLICATIONS AND PROJECTS

---

### Algorithm Development and Package

- *Time-Series-Library*: Deep Models for Time Series Analysis ([GitHub Stars 6k+](#)) *Co-Author*
- *Transfer-Learning-Library*: Algorithms for Transfer Learning ([GitHub Stars 3k+](#)) *Committer*

### Open-Source Models for Time Series

- *iTransformer*: Foundation Multivariate Time Series Model ([GitHub Stars 1k+](#)) *Maintainer*
- *Timer*: GPT-style Large Time Series Model for General Time Series Analysis *Maintainer*
- *Non-stationary Transformers*: Transformers for Non-stationary Forecasting *Maintainer*
- *Koopa*: Theory-Inspired Efficient Forecaster for Non-stationary Time Series *Maintainer*

### Systems and Applications

- *Apache IoTDB - AINode*: [Native AI Analysis in Time Series Database](#) *Project Leader*
- *iTransformer*: Green Computing of Ant Group ([Tons of Carbon Dioxide Saved](#)) *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*
- International Conference on Machine Learning (ICML) *2022-2024*
- International Conference on Very Large Databases (VLDB) *2023*
- Conference on Neural Information Processing Systems (NeurIPS) *2023-2024*

### 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*