

YONG LIU

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Google Scholar \diamond GitHub \diamond ORCID

EDUCATION

Ph.D. in Software Engineering

School of Software, Tsinghua University

Advisor: Prof. Mingsheng Long

Aug. 2021 – Present

Beijing, China

Bachelor in Software Engineering, Tsinghua University

School of Software, Tsinghua University

GPA: 3.63/4.0 Rank: 2/84

CET-4: 610; CET-6: 620

Aug. 2017 – July 2021

Beijing, China

Bachelor in Economics, Tsinghua University (*Second Degree*)

School of Economics and Management, Tsinghua University

Aug. 2018 – July 2021

Beijing, China

RESEARCH INTERESTS

My research interests cover **Time Series Analysis** and **Transfer Learning**. I am currently working on foundation time series models, large time series models, and multi-modal time series models. The pursuit of my research is to implement a deep learning methodology in valuable real-world applications.

PUBLICATIONS AND PREPRINTS

Timer: Generative Pre-trained Transformers Are Large Time Series Models *ICML 2024*

Yong Liu*, Haoran Zhang*, Chenyu Li*, Xiangdong Huang, Jianmin Wang, Mingsheng Long#

Deep Time Series Models: A Comprehensive Survey and Benchmark *arXiv preprint 2024*

Yuxuan Wang*, Haixu Wu*, Jiayang Dong, **Yong Liu**, Mingsheng Long, Jianmin Wang#

AutoTimes: Autoregressive Time Series Forecasters via Large Language Models *arXiv preprint 2024*

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

Deep Time Series Models: A Comprehensive Survey and Benchmark *arXiv preprint 2024*

Yuxuan Wang*, Haixu Wu*, Jiayang Dong, **Yong Liu**, Mingsheng Long, Jianmin Wang#

Koopa: Learning Non-stationary Time Series Dynamics with Koopman Predictors *NeurIPS 2023*.

Yong Liu*, Chenyu Li*, 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#

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 Library

- *Time-Series-Library*: Deep Models for Time Series Analysis *Committer*
- *Transfer-Learning-Library*: Algorithms for Transfer Learning *Committer*

Deep Models for Time Series

- *iTransformer*: Foundation Multivariate Time Series Model *Maintainer*
- *Timer*: Datasets, Checkpoints, Code for Developing Large Time Series Model *Maintainer*
- *Non-stationary Transformers*: Transformers for Non-stationary Forecasting *Maintainer*

Systems

- *Apache IoTDB - AINode*: Native Machine Learning Engine in Time Series Database *Designer*
- *Huawei*: Resource Allocation of AIOps *Alg. Instructor*
- *Ant Group*: Green Computing of Data Center *Alg. Developer*

SERVICES AND EXPERIENCES

Academic Services

- Conference Reviewer, International Conference on Learning Representations *2024*
- Conference Reviewer, International Conference on Machine Learning *2022-2024*
- Conference Reviewer, International Conference on Machine Learning *2023*
- Conference Reviewer, International Conference on Very Large Databases *2023*
- Conference Reviewer, Conference on Neural Information Processing Systems *2023-2024*

Teaching Experiences

- Teaching Assistant, Database System *Spring 2024*
- Teaching Assistant, Machine Learning *Fall 2023*
- Teaching Assistant, Introduction to Artificial Intelligence *Spring 2023*
- Teaching Assistant, Deep Learning *Fall 2022*
- Teaching Assistant, Introduction to Artificial Intelligence *Spring 2022*
- Teaching Assistant, Machine Learning *Fall 2021*
- Teaching Assistant, Introduction to Artificial Intelligence *Spring 2021*

HONORS AND AWARDS

- Shenzhen Stock Exchange Scholarship (**Top 1%**) *2023*
- Outstanding Papers of Beijing (**Top 1%**) *2021*
- Outstanding Graduates of Beijing (**Top 1%**) *2021*
- Excellent Graduates of Tsinghua (**Top 1%**) *2021*
- Future Scholar Scholarship, Tsinghua University (**Top 1%**) *2021*
- Boeing Scholarship, Tsinghua University (**Top 1%**) *2020*
- Tang Lixin Scholarship, Tsinghua University (**Top 1%**) *2020*
- Jiang Nanxiang Scholarship, Tsinghua University (**Top 1%**) *2019*
- Huawei Scholarship, Tsinghua University (**Top 1%**) *2018*