YONG LIU

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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
CET-4: 610; CET-6: 620

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 **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#

AutoTimes: Autoregressive Time Series Forecasters via Large Language Models   arXiv preprint 2024
Yong Liu*, Guo Qin*, 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#

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 Tranfer 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*