# Jialong Wu

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#### **EDUCATION**

#### Ph.D. in Software Engineering

Aug 2022 – June 2027 (*expected*)

School of Software, Tsinghua University

Beijing, China

- Advisor: Prof. Mingsheng Long
- Research Interests: World Models, Reinforcement Learning, Transfer Learning

#### **Bachelor in Software Engineering**

Aug 2018 – June 2022

School of Software, Tsinghua University

Beijing, China

• GPA: 3.98/4.0, Rank: 1/89

# Bachelor in Pure and Applied Mathematics (Second Degree)

Aug 2019 - June 2022

Department of Mathematical Sciences, Tsinghua University

Beijing, China

• GPA: 3.75/4.0

# PUBLICATIONS AND PREPRINTS

# CompilerDream: Learning a Compiler World Model for General Code Optimization

Chaoyi Deng\*, Jialong Wu\*, Ningya Feng, Jianmin Wang, Mingsheng Long#. arXiv preprint, 2024.

# Long-Sequence Recommendation Models Need Decoupled Embeddings

Ningya Feng\*, Junwei Pan\*, Jialong Wu\*, Baixu Chen, Ximei Wang,

Qian Li, Xian Hu, Jie Jiang, Mingsheng Long#. arXiv preprint, 2024.

#### iVideoGPT: Interactive VideoGPTs are Scalable World Models

Jialong Wu\*, Shaofeng Yin\*, Ningya Feng, Xu He, Dong Li, Jianye Hao, Mingsheng Long#. NeurIPS, 2024.

#### HarmonyDream: Task Harmonization Inside World Models

Haoyu Ma\*, Jialong Wu\*, Ningya Feng, Chenjun Xiao, Dong Li, Jianye Hao, Jianmin Wang, Mingsheng Long#. ICML, 2024.

#### Pre-training Contextualized World Models with In-the-wild Videos for Reinforcement Learning

Jialong Wu\*, Haoyu Ma\*, Chaoyi Deng, Mingsheng Long#. NeurIPS, 2023.

#### **CLIPood: Generalizing CLIP to Out-of-Distributions**

Yang Shu\*, Xingzhuo Guo\*, Jialong Wu, Ximei Wang, Jianmin Wang, Mingsheng Long#. ICML, 2023.

#### Supported Policy Optimization for Offline Reinforcement Learning

Jialong Wu, Haixu Wu, Zihan Qiu, Jianmin Wang, Mingsheng Long#. NeurIPS, 2022.

#### **Out-of-Dynamics Imitation Learning from Multimodal Demonstrations**

Yiwen Qiu, **Jialong Wu**, Zhangjie Cao, Mingsheng Long#. *CoRL*, 2022.

#### Flowformer: Linearizing Transformers with Conservation Flows

Haixu Wu, Jialong Wu, Jiehui Xu, Jianmin Wang, Mingsheng Long#. ICML, 2022.

## HONORS AND AWARDS

Tsinghua University

TONORS AND AWARDS	
Future Researcher Scholarship Tsinghua University	2022
Outstanding Graduates (Top 2%) School of Software & Tsinghua University & Beijing	2022
National Scholarship (Top 1%) Ministry of Education of the People's Republic of China	2019 – 2020
Comprehensive Excellence Award (Top 10%)	2019, 2021, 2023

34th National Olympiad in Informatics (NOI 2017), Silver Medal (81st Place)

July 2017

China Computer Federation (CCF)

#### Reviewer | PC Member

- International Conference on Learning Representations (ICLR) 2024
- Conference on Neural Information Processing Systems (NeurIPS) 2023 2024
- International Conference on Machine Learning (ICML) 2022 2024
- Transactions on Machine Learning Research (TMLR)

# **Teaching Assistant**

- Deep Learning, Fall 2023, Tsinghua University. Instructor: Prof. Mingsheng Long.
- Introduction to Algorithms, Spring 2023, Tsinghua University. Instructor: Prof. Bin Wang.
- Machine Learning, Fall 2022, Tsinghua University. Instructor: Prof. Mingsheng Long.
- Introduction to Artificial Intelligence, Spring 2021 2022, 2024, Tsinghua University. Instructor: Prof. Mingsheng Long.

#### **Student Counselor**

• Undergraduate Student Counselor, Dushi College, Tsinghua University, 2024–2027 (expected).

## SELECTED PROJECTS

# Awesome Multi-task Learning | 590+ Stars

Up-to-date

A curated list of datasets, codebases, and papers on Multi-Task Learning (MTL).

# **ImageLabeler** | *C++, Qt* | *100+ Stars, 30+ Forks*

Summer 2019

Image annotation tool, supporting 2D/3D detection/segmentation annotation.

# <u>Incremental Decision Tree</u> | Python (NumPy, Matplotlib, Pandas)

Fall 2020

Re-implementation of VFDT and EFDT, reproducing paper Extremely Fast Decision Tree.

#### TECHNICAL SKILLS

**Programming Languages**: Python, C/C++, MATLAB, Java, JavaScript, HTML/CSS

Professional Software: PyTorch, NumPy, Git, LaTeX, Vue

Language: China (native), English

*Last updated: 10/11/2024*