

# WU Duo

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Information Building Tsinghua Campus, University Town of Shenzhen, P. R. China

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

## EDUCATION

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### PhD. at Tsinghua University

09/2024 - now

- Major: Electronic Information
- Advisor: [Prof. Zhi Wang](#)
- Lab: [MMLab@SIGS](#)
- Research Group: [Decision LLM](#)

### M.Phil. at The Chinese University of Hong Kong, Shenzhen

09/2022 - 07/2024

- Major: Computer and Information Engineering
- Advisor: [Prof. Fangxin Wang](#)
- Lab: [FNii - INML](#)

### B.S. at Jinan University

09/2018 - 07/2022

- Major: Computer Science and Technology
- Advisor: [Prof. Lin Cui](#)

## RESEARCH

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### Research Interests:

*Reinforcement Learning, Large Language Models, AI Agents, Multimedia Networking.*

My recent research interests primarily center on *designing algorithms and systems to efficiently harness the capabilities of LLMs to solve fundamental decision-making and planning problems to benefit various domains*, which I call **Decision LLM**.

### Publications:

- ❖ **Duo Wu**, Jinghe Wang, Yuan Meng, Yanning Zhang, Le Sun, Zhi Wang. *CATP-LLM: Empowering Large Language Models for Cost-Aware Tool Planning*. Under Review 2025.
- ❖ **Duo Wu**, Xianda Wang, Yaqi Qiao, Zhi Wang, Junchen Jiang, Shuguang Cui, Fangxin Wang. *NetLLM: Adapting Large Language Models for Networking*. **Accepted by ACM SIGCOMM 2024 (CCF-A, Acceptance Ratio: 62/366=16.9%)**
- ❖ Xianda Wang\*, Yaqi Qiao\*, **Duo Wu\***, Chenrui Wu, Fangxin Wang. *Cluster Based Heterogeneous Federated Foundation Model Adaptation and Fine-Tuning*. Accepted by AAAI 2025 (**CCF-A**) (\*Contribute Equally)
- ❖ **Duo Wu**, Panlong Wu, Miao Zhang, Fangxin Wang. *MANSY: Generalizing Neural Adaptive Immersive Video Streaming With Ensemble and Representation Learning*. Accepted by IEEE Transactions on Mobile Computing 2024 (**CCF-A**)
- ❖ **Duo Wu**, Dayou Zhang, Miao Zhang, Ruoyu Zhang, Fangxin Wang, Shuguang Cui. *ILCAS: Imitation Learning-Based Configuration-Adaptive Streaming for Live Video Analytics with Cross-Camera Collaboration*. Accepted by IEEE Transactions on Mobile Computing 2023 (**CCF-A**)
- ❖ **Duo Wu**, Lin Cui. *A Comprehensive Survey on Segment Routing Traffic Engineering*. Accepted by Digital Communications and Networks (**JCR-Q1**)

## HONORS & SCHOLARSHIPS

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### Presidential Award for Outstanding Graduate Students, CUHKSZ, 2024

*Only 10 awardee out of 1500+ postgraduate students in CUHKSZ*

### Academic Star Nomination, JNU, 2021

*Only 23 awardee in JNU*

### University Scholarship of Innovative and Talented Undergraduate, JNU, 2021

*10000 RMB, only 30 awardee in JNU*

## COMPETITION AWARDS

### National-level:

- ❖ *Gold Award* | The 2<sup>nd</sup> China Collegiate Algorithm Design & Programming Challenge Contest (Spring Competition) 06/2021
- ❖ *1<sup>st</sup> Prize* | The 12<sup>th</sup> Lanqiao Cup National Software and Information Technology Professional Talent Competition (National Final), Python Programming University Group 06/2021
- ❖ *Bronze Award* | The 2<sup>nd</sup> China Collegiate Algorithm Design & Programming Challenge Contest (Winter Competition) 03/2021
- ❖ *Individual 3<sup>rd</sup> Prize* | 'China University Computer Competition – Group Programming Ladder Tournament' National Final 12/2020
- ❖ *3<sup>rd</sup> Prize* | The 11<sup>th</sup> Lanqiao Cup National Software and Information Technology Professional Talent Competition (National Final), C/C++ Programming University Group A 11/2020
- ❖ *3<sup>rd</sup> Prize* | The 2020 National College Students Software Testing Contest Final 11/2020

### Provincial-level:

- ❖ *1<sup>st</sup> Prize* | The 12<sup>th</sup> Lanqiao Cup National Software and Information Technology Professional Talent Competition (Guangdong Division), Python Programming University Group 05/2021
- ❖ *Group 1<sup>st</sup> Prize* | 'China University Computer Competition – Group Programming Ladder Tournament' TOP-competing Group of Guangdong Province 12/2020
- ❖ *2<sup>nd</sup> Prize* | The 2020 National College Students Software Testing Contest Semifinal (Guangdong Division) 11/2020
- ❖ *1<sup>st</sup> Prize* | Lanqiao Cup National Software and Information Technology Professional Talent Competition (Guangdong Division), C/C++ Programming University Group A 10/2020
- ❖ *3<sup>rd</sup> Prize* | The 2019 China University Student Programming Competition - Guangdong University Student Programming Competition 05/2019

### University-level:

- ❖ *2<sup>nd</sup> Prize* | The 2019 'Huawei Cup' ACM Program Design Point Competition of Jinan University 06/2019
- ❖ *1<sup>st</sup> Prize* | The 7<sup>th</sup> 'Huawei Cup' ACM Programming Competition of Jinan University 04/2019
- ❖ *3<sup>rd</sup> Prize* | The ACM Programming Competition for Training Camp Selection of Jinan University 12/2018

## INTERNSHIP EXPERIENCE

**Future Network of Intelligence Institute at CUHKSZ** 09/2022-04/2024  
*Research Assistant*

**Huawei Technologies Co. LTD. at Dongguan** 07/2021-09/2021  
*Software Engineer (Intern)*

## SERVICICES

Journal Reviewer for:

- ❖ IEEE Transactions on Mobile Computing
- ❖ IEEE Transactions on Network and Service Management

Conference Reviewer for:

- ❖ NeurIPS 2024
- ❖ ACM Multimedia 2023

Teaching Assistant for:

- ❖ 64100033-200 Big Data System (B), 2024 Fall

## TALK

- ❖ NetLLM: Adapting Large Language Models for Networking SIGCOMM, Sydney, Australia, Aug. 6th, 2024.
- ❖ Adapting Large Language Models for Networking The University of Göttingen, Göttingen, Germany, Virtual, Sept. 23rd, 2024.
- ❖ NetLLM: Adapting Large Language Models for Networking AI TIME Youth Talk, Virtual, Oct. 30th, 2024.