

HAOTIAN HUANG

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Education

National University of Singapore

Aug. 2024 – Jan. 2026

M.S. in Data Science and Machine Learning, Department of Mathematics

Singapore

- GPA: 4.8/5.0

Sun Yat-sen University

Sep. 2020 – Jun. 2024

B.S. in Mathematics, School of Mathematics

Guangzhou, China

- GPA: 90/100
- Scholarships: **National Scholarship** (Top 0.2% national-wide), First-class Scholarship (Top 8% university-wide)
- Outstanding Courses: Digital Image Process (100) 🏆, Real Analysis (100), Differential Geometry (99), Partial Differential Equations (98), Functional Analysis (97), Data Structure (95)

Publications

(* stands for equal contribution.)

- [1] (**ICML 2025**) Tianqi Du*, **Haotian Huang***, Yifei Wang, Yisen Wang. “Output Alignment: A Fresh Perspective on Length Generalization in LLMs”
- [2] (**ICML 2024**) Qi Zhang*, Tianqi Du*, **Haotian Huang**, Yifei Wang, Yisen Wang. “Look Ahead or Look Around? A Theoretical Comparison Between Autoregressive and Masked Pretraining”

Selected Awards and Honors

National Scholarship

2023

First-class Merit Student Scholarship of Sun Yat-sen University

2023

Provincial 1st Prize in The Chinese Mathematics Competitions

2022

Second-class Merit Student Scholarship of Sun Yat-sen University

2021, 2022

Research Experience

Research on Self-supervised Learning

Sep. 2023 – May. 2025

Research Assistant, Supervised by Yisen Wang, ZERO Lab, Peking University

Beijing, China

- Conducted the first theoretical comparison between two types of NLP SSL methods represented by GPT and BERT.
- Conducted a new method and theoretical analysis of the length generalization for Transformer models.

Internship

TikTok

May. 2026 – Sep. 2026

Algorithm Engineer

Singapore

- Responsible for the TikTok Shop address suggestion project, developing a universal recommendation model across SEA that significantly improved address recommendation accuracy (10%), outperforming traditional methods and Google’s solution.

Skills and Language

Programming Languages: Python, C/C++, Java

Deep Learning Framework: PyTorch

Other: L^AT_EX