

Yuxian Gu

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Education

Tsinghua University

PH.D. STUDENT IN COMPUTER SCIENCE AND TECHNOLOGY

- Member of **Tsinghua Conversational AI Group (CoAI)**
- Research Interest: Efficient Methods for Language Models
- Advisor: Prof. Minlie Huang

Beijing, China

Sept. 2021 - Present

Tsinghua University

B. ENG. IN COMPUTER SCIENCE AND TECHNOLOGY

Beijing, China

Sept. 2017 - June 2021

Publications

- [1] **Jet-Nemotron: Efficient Language Model with Post Neural Architecture Search Architecture**
Yuxian Gu, Qinghao Hu, Shang Yang, Haocheng Xi, Junyu Chen, Song Han, Hai Cai. In *The Thirty-Ninth Annual Conference on Neural Information Processing Systems (NeurIPS)*, 2025.
- [2] **Data Selection via Optimal Learning for Language Models**
Yuxian Gu, Li Dong, Hongning Wang, Yaru Hao, Qingxiu Dong, Minlie Huang, Furu Wei. In *International Conference on Learning Representations (ICLR)*, 2025. **(Oral, top 1.8%)**
- [3] **Instruction Pre-Training: Language Models are Supervised Multitask Learners**
Daixuan Cheng, Yuxian Gu, Shaohan Huang, Junyu Bi, Minlie Huang, Furu Wei. In *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing (EMNLP 2024)*.
- [4] **MiniLLM: Knowledge Distillation of Large Language Models**
Yuxian Gu, Li Dong, Furu Wei, Minlie Huang. *International Conference on Learning Representations (ICLR)*, 2024. **(850+ citations)**
- [5] **PPT: Pre-Trained Prompt Tuning for Few-Shot Learning**
Yuxian Gu*, Xu Han*, Zhiyuan Liu, Minlie Huang. In *Proceedings of the 60th Annual Meeting of the Association for Computational Linguistics (ACL)*, 2022. **(630+ citations)**
- [6] **Pre-Training to Learn in Context**
Yuxian Gu, Li Dong, Furu Wei, Minlie Huang. In *Proceedings of the 61th Annual Meeting of the Association for Computational Linguistics (ACL)*, 2023. **(Oral)**
- [7] **MiniPLM: Knowledge Distillation for Pre-training Language Models**
Yuxian Gu, Hao Zhou, Fandong Meng, Jie Zhou, Minlie Huang. *International Conference on Learning Representations (ICLR)*, 2025.
- [8] **Learning Instructions with Unlabeled Data for Zero-Shot Cross-Task Generalization**
Yuxian Gu, Pei Ke, Xiaoyan Zhu, Minlie Huang. In *Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2022. **(Oral)**
- [9] **CPM-2: Large-Scale Cost-Effective Pre-Trained Language Models**
Zhengyan Zhang*, Yuxian Gu*, Xu Han*, Shengqi Chen*, Chaojun Xiao*, Zhenbo Sun, Yuan Yao, et al. In *AI Open*, 2022.
- [10] **Train No Evil: Selective Masking for Task-Guided Pre-Training**
Yuxian Gu, Zhengyan Zhang, Xiaozhi Wang, Zhiyuan Liu, Maosong Sun. In *Proceedings of the Empirical Methods in Natural Language Processing (EMNLP)*, 2020. (short)

Experience

MIT HAN Lab

VISITING STUDENT

- Advised by Prof. Song Han.

Cambridge, USA

Oct. 2024 - Jun. 2025

Microsoft Research Asia

RESEARCH INTERN

- Mentored by Dr. Li Dong.

Beijing, China

Oct. 2022 - Mar. 2024

Honors & Awards

2025	Tsinghua Top Grade Scholarship for Graduates (清华大学研究生特等奖学金) The best honor for graduates in Tsinghua. (Awarded to the top 10 graduate students in Tsinghua University)	Tsinghua University
2025	ZhongShiMo Scholarship, the Department of Computer Science, Tsinghua University (清华大学计算机系钟士模奖学金) The best honor for graduates in the Department of Computer Science, Tsinghua University. (Awarded to the top 3 graduate students in the DCST, Tsinghua University)	Tsinghua University
2025	Apple Scholars in AIML PhD fellowship Recognizes the contributions of researchers in computer science and engineering at the graduate and postgraduate levels. (Awarded to the top 21 students worldwide)	Apple Inc.
2022-2024	Comprehensive Scholarship Awarded to Ph.D. students with excellent achievements by Tsinghua University.	Tsinghua University
2021	Excellent Graduate, Tsinghua University (top 5%) Awarded to graduates with excellent achievements by Tsinghua University.	Tsinghua University
2021	Outstanding Graduate, Dept. CST, Tsinghua University Awarded to graduates with excellent achievements by Department of Computer Science and Technology, Tsinghua University.	Tsinghua University
2021	Outstanding Undergraduate Dissertation, Tsinghua University (top 5%) Awarded to outstanding undergraduate dissertations by Tsinghua University.	Tsinghua University
2018, 2020	Comprehensive Scholarship Awarded to students with excellent achievements by Department of Computer Science and Technology, Tsinghua University.	Tsinghua University
2016	1st Prize, Chinese Physics Olympiad in Provinces Nation-wide contest on physics.	Beijing, China
2016	1st Prize, Pan-Pearl River Delta and Chinese Elite Schools Physics Olympiad Nation-wide contest on physics.	Shenzhen, China

Projects

Jet-Nemotron: SOTA Hybrid Model with Linear and Full Attention

DEC. 2024 - JULY. 2025

- Matches Qwen3 on MMLU(-pro), math, code, and long-context tasks. Delivering **>40x** generation throughput.
- Open Source: <https://github.com/NVlabs/Jet-Nemotron>

CPM-2: Large-scale Cost-effective Pre-trained Language Models

JAN. 2021 - JUNE. 2021

- (By the time of release) The largest open-source Chinese pre-trained language model (**11B parameters**).
- Open Source: <https://github.com/TsinghuaAI/CPM-2-Pretrain>

EVA: Large-scale Open-domain Chinese Dialogue System

SEP. 2021 - JAN. 2022

- (By the time of release) The largest open-source Chinese dialogue model with pre-training (2.8B parameters).
- Open Source: <https://github.com/thu-coai/EVA>

Teaching Assistantships

Object Oriented Programming

Instructor: Prof. Minlie Huang

Tsinghua University

Spring 2022, 2023, 2024

Artificial Neural Networks

Instructor: Prof. Minlie Huang

Tsinghua University

Fall 2021, 2022, 2023