Guantao Chen

Undergraduate Student & Researcher in Generative Models

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Education

B.Eng. Sun Yat-sen University, Computer Science and Engineering (Artificial Intelligence and Big Data) — Guangzhou, China, Sept 2023 – present

- ***GPA***: 4.13/5.0 (Rank: 1/30), ***CET-4***: 634, ***CET-6***: 620.
- ***Honors***: National Scholarship (国家奖学金); SYSU First-Class Scholarship; SYSU Second-Class Scholarship; Ranked 12th in 2025 Tencent AI Arena Embodied Intelligence Reinforcement Learning Track.
- ***Core Courses***: Discrete Mathematics (93), Convex Optimization (91), Data Structure and Algorithm (95), Artificial Intelligence (92), Machine Learning and Data Mining (90), Probability Theory and Mathematical Statistics (95), Algebraic Structures (100).

Research Experience

EPIC Lab, Shanghai Jiao Tong University, Research Assistant — Shanghai, China, Aug 2025 – present

- Advisor: Prof. Linfeng Zhang
- 3 papers at top-tier venues (CVPR 2026 ×2, ICLR 2026 Oral) on efficient generative models.

InPlusLab, Sun Yat-sen University, Research Assistant — Guangzhou, China, Sept 2023 – Nov 2025

- Advisor: Prof. Chuan Chen
- Investigated federated learning for privacy-preserving distributed training.

Publications

Forecast the Principal, Stabilize the Residual: Subspace-Aware Feature Caching for Efficient Diffusion Transformers — Feb 2026

Guantao Chen*, Shikang Zheng*, Yuqi Lin, Linfeng Zhang

This paper presents SVD-Cache, a novel subspace-aware feature caching mechanism for accelerating diffusion transformers via SVD decomposition that handles each subspace uniquely.

arxiv.org/abs/2601.07396 (CVPR 2026)

From Sketch to Fresco: Efficient Diffusion Transformer with Progressive Resolution — Feb 2026

Shikang Zheng*, ***Guantao Chen****, Lixuan He, Jiacheng Liu, Yuqi Lin, Chang Zou, Linfeng Zhang

This paper presents Fresco, a progressive resolution approach for diffusion transformers, enabling efficient inference by gradually increasing the resolution of feature spaces.

arxiv.org/abs/2601.07462 (CVPR 2026)

Let Features Decide Their Own Solvers: Hybrid Feature Caching for Diffusion Transformers — Oct 2025

Shikang Zheng, ***Guantao Chen***, Qinming Zhou, Yuqi Lin, Lixuan He, Chang Zou, Peiliang Cai, Jiacheng Liu, Linfeng Zhang

This paper proposes HyCa, a hybrid feature caching strategy that allows for solvers to be selected dynamically for different clusters, improving the effectiveness of diffusion transformers.

arxiv.org/abs/2510.04188 (ICLR 2026, ***Oral***)

Projects & Skills

Zhiyuan: Free/paid campus resource upload & download platform for students	Vue, TypeScript, PostgreSQL
Tumor Recognition based on Federated Learning	Python
An IOS app that tracks the average cost of the users belongings	Swift, SwiftUI
[In Progress] Adapting Umi-OCR to MacOS	Python, Swift, SwiftUI