

Cheng Lu

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Work Experience

Meta Platforms, Inc. <i>Research Scientist, Meta Super Intelligence TBD Lab</i> <ul style="list-style-type: none">Pretraining architecture and optimization.	Sep 2025 – Current Menlo Park, CA
OpenAI OpCo, LLC <i>Member of Technical Staff</i> <ul style="list-style-type: none">Worked on multimodal generation, pretraining architecture and optimization.<i>Core Research</i> in GPT-4o Image Generation (Blog Link), <i>Core Research</i> in Sora2 (Blog Link).<i>First Author</i> of sCM. (Blog Link)	Feb 2024 – Sep 2025 San Francisco, CA

Education

Tsinghua University <i>PhD in Computer Science and Technology, supervised by Jun Zhu</i>	Sep 2019 – Jan 2024 Beijing, China
Tsinghua University <i>BE in Computer Science and Technology</i>	Aug 2015 – Jul 2019 Beijing, China

Honors & Awards

Outstanding Doctoral Thesis, Tsinghua University	2024
Beijing Outstanding Graduates	2024
Zhong Shimo Scholarship	2023
China National Scholarship	2023
ByteDance Scholarship	2023
‘84’ Future Innovation Scholarship, Tsinghua University	2020
Outstanding Graduates, Department of Computer Science and Technology, Tsinghua University	2019
The Mathematical Contest in Modeling, Meritorious Winner	2018
Chinese Mathematical Olympiad (CMO), Silver Medal	2014

Research Highlight

sCM: Simplifying, Stabilizing and Scaling Continuous-Time Consistency Models <ul style="list-style-type: none">Continuous-time consistency models with sample quality comparable to leading diffusion models in just two sampling steps.	2024
DPM-Solver and DPM-Solver++ <ul style="list-style-type: none">Training-free fast samplers for diffusion models, within only 10 to 20 steps.Widely-used in various text-to-image diffusion models, such as stable-diffusion (v1, v2, XL and LoRA variants), DreamStudio, StableBoost, Stable-Diffusion-WebUI, Apple’s Core ML library, Stability-AI’s DeepFloyd-IF.	2022
ProlificDreamer <ul style="list-style-type: none">High-fidelity text-to-3D generation with solely 2D diffusion models. Greatly outperforms all previous works, such as Dreamfusion and Magic3D.Propose <i>variational score distillation</i>, a principled score distillation algorithm, suitable for both 2D and 3D.	2023

Publications

Publications

- **Cheng Lu**, Yang Song. *Simplifying, Stabilizing and Scaling Continuous-Time Consistency Models*. International Conference on Learning Representations (**ICLR**), 2025. **(Oral)**
- Haozhe Ji, **Cheng Lu**, Yilin Niu, Pei Ke, Hongning Wang, Jun Zhu, Jie Tang, Minlie Huang. *Towards Efficient and Exact Optimization of Language Model Alignment*. International Conference on Machine Learning (**ICML**), 2024.
- Shen Nie, Hanzhong Allan Guo, **Cheng Lu**, Yuhao Zhou, Chenyu Zheng, Chongxuan Li. *The Blessing of Randomness: SDE Beats ODE in General Diffusion-based Image Editing*. International Conference on Learning Representations (**ICLR**), 2024.
- Huayu Chen, **Cheng Lu**, Zhengyi Wang, Hang Su, Jun Zhu. *Score Regularized Policy Optimization through Diffusion Behavior*. International Conference on Learning Representations (**ICLR**), 2024.
- Zhengyi Wang*, **Cheng Lu***, Yikai Wang, Fan Bao, Chongxuan Li, Hang Su, Jun Zhu. *ProlificDreamer: High-Fidelity and Diverse Text-to-3D Generation with Variational Score Distillation*. Conference on Neural Information Processing Systems (**NeurIPS**), 2023. **(Spotlight)**
- Kaiwen Zheng*, **Cheng Lu***, Jianfei Chen, Jun Zhu. *DPM-Solver-v3: Improved Diffusion ODE Solvers with Empirical Model Statistics*. Conference on Neural Information Processing Systems (**NeurIPS**), 2023.
- Tianyu Pang, **Cheng Lu**, Chao Du, Min Lin, Shuicheng YAN, Zhijie Deng. *On Calibrating Diffusion Probabilistic Models*. Conference on Neural Information Processing Systems (**NeurIPS**), 2023.
- Hanzhong Allan Guo, **Cheng Lu**, Fan Bao, Tianyu Pang, Shuicheng YAN, Chao Du, Chongxuan Li. *Gaussian Mixture Solvers for Diffusion Models*. Conference on Neural Information Processing Systems (**NeurIPS**), 2023.
- **Cheng Lu***, Huayu Chen*, Jianfei Chen, Hang Su, Chongxuan Li, Jun Zhu. *Contrastive Energy Prediction for Exact Energy-Guided Diffusion Sampling in Offline Reinforcement Learning*. International Conference on Machine Learning (**ICML**), 2023.
- Kaiwen Zheng*, **Cheng Lu***, Jianfei Chen, Jun Zhu. *Improved Techniques for Maximum Likelihood Estimation for Diffusion ODEs*. International Conference on Machine Learning (**ICML**), 2023.
- Huayu Chen, **Cheng Lu**, Chengyang Ying, Hang Su, Jun Zhu. *Offline Reinforcement Learning via High-Fidelity Generative Behavior Modeling*. International Conference on Learning Representations (**ICLR**), 2023.
- **Cheng Lu**, Yuhao Zhou, Fan Bao, Jianfei Chen, Chongxuan Li, Jun Zhu. *DPM-Solver: A Fast ODE Solver for Diffusion Probabilistic Model Sampling in Around 10 Steps*. Conference on Neural Information Processing Systems (**NeurIPS**), 2022. **(Oral)**
- **Cheng Lu**, Kaiwen Zheng, Fan Bao, Chongxuan Li, Jianfei Chen, Jun Zhu. *Maximum Likelihood Training for Score-Based Diffusion ODEs by High Order Denoising Score Matching*. International Conference on Machine Learning (**ICML**), 2022.
- **Cheng Lu**, Jianfei Chen, Chongxuan Li, Qiuhan Wang, Jun Zhu. *Implicit Normalizing Flows*. International Conference on Learning Representations (**ICLR**), 2021. **(Spotlight)**
- Jianfei Chen, **Cheng Lu**, Biqi Chenli, Jun Zhu, Tian Tian. *VFlow: More Expressive Generative Flows with Variational Data Augmentation*. International Conference on Machine Learning (**ICML**), 2020.

Preprints

- **Cheng Lu**, Yuhao Zhou, Fan Bao, Jianfei Chen, Chongxuan Li, Jun Zhu. *DPM-Solver++: Fast Solver for Guided Sampling of Diffusion Probabilistic Models*. 2022.

Services

- Reviewer: ICML, NeurIPS, ICLR, CVPR, ICCV, ECCV, IJCV
- Contributor of [huggingface/diffusers](#)