JIALI CUI

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ABOUT ME

I am a Ph.D. student at Stevens Institute of Technology, advised by Dr. Tian Han. My **research interest** can be summarized as:

- Probabilistic Generative Model (Latent variable generative model, Energy-based model)
- Unsupervised Learning / Semi-supervised Learning (Maximum likelihood learning, Joint learning)
- Representation Learning (Hierarchical representation learning, disentanglement learning)

PUBLICATION

Learning Latent Space Hierarchical EBM Diffusion Models.

- **Jiali Cui**, Tian Han.
- *The International Conference on Machine Learning 2024 (**@ ICML 2024**)*
- Learning energy-based (EBM) prior model with multi-layer generator model within diffusion learning scheme.

Learning Energy-based Model via Dual-MCMC Teaching.

- **Jiali Cui**, Tian Han.
- *The 37th Conference on Neural Information Processing Systems (**@ NeurIPS 2023**)*
- Learning energy-based model (EBM) with complementary generator and inference model with Markov Chain Monte Carlo (MCMC) sampling for both the EBM and generator posterior.

Learning Hierarchical Features with Joint Latent Space Energy-Based Prior.

- **Jiali Cui**, Ying Nian Wu, Tian Han.
- *The IEEE/CVF International Conference on Computer Vision (**@ ICCV 2023**)*
- Learning energy-based (EBM) prior model of multi-layer latent variables for representation learning.

Learning Joint Latent Space EBM Prior Model for Multi-layer Generator.

- **Jiali Cui**, Ying Nian Wu, Tian Han.
- *The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2023 (**@ CVPR 2023**)*
- Learning joint energy-based (EBM) prior model with multi-layer generator model for image modelling.

Semi-supervised learning by latent space energy-based model of symbol-vector coupling.

- Bo Pang, Erik Nijkamp, **Jiali Cui**, Tian Han, Ying Nian Wu.
- *Workshop on I Can't Believe It's Not Better (ICBINB) **@ NeurIPS, 2020***
- Learning symbol-coupling energy-based (EBM) prior model for both the discriminative and generative tasks.

EDUCATION

Stevens Institute of Technology *Hoboken, NJ*

Ph.D. in Computer Science *2021 – Now*

- **Research and Teaching Assistant:** CS583. Deep Learning

Stevens Institute of Technology *Hoboken, NJ*

M.S. in Computer Science *2019 – 2021*

- **Course Assistant:** CS559. Machine Learning, CS515. Fundamentals of Computing

Harbin Institute of Technology *Harbin, China*

B.S. in Computer Science *2015 – 2019*

- **Thesis:** Colorizing Gray Image via Self-Attention Generative Adversarial Network

SERVICE

Reviewer ECCV'22, AAAI'22, CVPR'23, NeurIPS'23, AAAI'24, ICLR'24, ICML'24, CVPR'24, ECCV'24