

JIARU ZHANG

▸ 24 years old · ✉ jiaruzhang@sjtu.edu.cn · 📧 jiaruzhang7 · 🌐 lan-qing.github.io

🎓 EDUCATION BACKGROUND

Shanghai Jiao Tong University, Shanghai, *Ph.D Candidate* 2019.9 – 2024.3 (Expected)

Computer Science and Technology. Supervisor: Haibing Guan. Research interests: Bayesian Neural Networks, Adversarial Attack and Defense, Causal Discovery

Shanghai Jiao Tong University, Shanghai, *Bachelor* 2015.9 – 2019.6

Outstanding graduate of SJTU, Computer Science and Technology (IEEE Honor class)

• **University of Washington**, Seattle, *Electrical Engineering International Intensive program* 2017.6 - 2017.8

▶ INTERNSHIP EXPERIENCES

Microsoft Research Asia, Beijing 2022.11 - 2023.8

Data, Knowledge, Intelligence Group, Mentor: Justin Ding

- Solve supervised causal discovery problem based on transformer neural network architecture
- Explore better solutions and submit two papers to a top conference as first author and co-author separately

China International Capital Corporation Limited, Shanghai 2023.8 - 2023.9

Research Department

- Reproduce factor mining techniques based on deep neural networks
- Use Bayesian neural networks to model factor uncertainty and self-attention mechanisms to model relationships between stocks

👤 ACADEMIC ACHIEVEMENTS

- **Jiaru Zhang**, Yang Hua, Tao Song, Hao Wang, Zhengui Xue, Ruhui Ma, Haibing Guan. Information Bound and its Applications in Bayesian Neural Networks. In ECAI 2023.
- **Jiaru Zhang**, Yang Hua, Tao Song, Hao Wang, Zhengui Xue, Ruhui Ma, Haibing Guan. Improving Bayesian Neural Networks by Adversarial Sampling. In AAAI 2022.
- **Jiaru Zhang**, Yang Hua, Zhengui Xue, Tao Song, Chengyu Zheng, Ruhui Ma, Haibing Guan. Robust Bayesian Neural Networks by Spectral Expectation Bound Regularization, In CVPR 2021.
- **Jiaru Zhang**, Ruhui Ma, Tao Song, Yang Hua, Zhengui Xue, Chenyang Guan, Haibing Guan. Hierarchical Satellite System Graph for Approximate Nearest Neighbor Search on Big Data. ACM Transactions on Data Science, 2(4), 1-15, 2022.
- Chumeng Liang*, Xiaoyu Wu*, Yang Hua, **Jiaru Zhang**, Yiming Xue, Tao Song, Zhengui Xue, Ruhui Ma, Haibing Guan. Adversarial Example Does Good: Preventing Painting Imitation from Diffusion Models via Adversarial Examples. In ICML 2023 (oral).
- Zesong Wang*, **Jiaru Zhang***, Hao Wang, Tao Song, Huai-an Su, Rui Chen, Yang Hua, Xiangwei Zhou, Ruhui Ma, Miao Pan, Haibing Guan. THOR: Generic Energy Estimation for On-device Training. In Submission, 2023.
- **Jiaru Zhang**, Rui Ding, Qiang Fu, Yang Hua, Haibing Guan, Shi Han, Dongmei Zhang. Learning Identifiable Causal Structures with Pairwise Representation. In Submission, 2023.
- Pingchuan Ma, Rui Ding, Qiang Fu, **Jiaru Zhang**, Shuai Wang, Shi Han, Dongmei Zhang. SPOT: Harnessing Differentiable Causal Discovery in the Presence of Latent Confounders with Skeleton Posterior. In Submission, 2023.
- Xiaoyu Wu, Yang Hua, Chumeng Liang, **Jiaru Zhang**, Hao Wang, Tao Song, Haibing Guan. CGI-DM: Digital Copyright Authentication for Diffusion Models via Contrasting Gradient Inversion. In Submission, 2023.

CONTEST PROJECTS

Paper Citation Network Nodes Classification based on Unimp Algorithm 2020.11

- Use the Unimp algorithm for classification and further improve it with a simple ensemble learning method.
- Get the first place among 222 teams in the 2020-11 season in a competition¹ organized by Baidu.

IT TECHNIQUES

- Familiar: Python, PyTorch, LaTeX, C/C++
- Used: Linux, Git, TensorFlow 1.x, Django, MATLAB, PaddlePaddle, MySQL, etc.

AWARDS & HONORS

Stars of Tomorrow (Award of Excellent Intern of Microsoft Research Asia)	2023
CETC The 14TH Research Institute Glarun Scholarship	2021
Outstanding Graduate of SJTU	2019
Three Good Student	2018, 2020, 2021
Excellent League Member	2016, 2020, 2021
Excellent Student Cadre	2016

¹<https://aistudio.baidu.com/aistudio/competition/detail/59>