Jia-Qi Yang

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Personal Profile

I am a machine learning / data mining researcher. I have been mainly working on recommender systems, graph neural networks, and machine learning for scientific design. Since 2021, I have been pursuing my doctoral studies at Nanjing University, under the esteemed guidance of Prof. De-Chuan Zhan.

Education

Nanjing University   *Nanjing, China*
Doctor of Philosophy (Computer Science and Technology)   *Sept 2021 - Current*
Recommender systems, machine learning for scientific design

Nanjing University   *Nanjing, China*
Master of Engineering (Computer Science and Technology)   *Sept 2018 - June 2021*
Graph neural networks

Wuhan University   *Wuhan, China*
Bachelor of Engineering (Electrical Engineering and its Automation)   *Sept 2014 - June 2018*
Deep learning for electricity interruption detection

Publications

PREPRINTS

COURIER: Contrastive User Intention Reconstruction for Large-Scale Pre-Train of Image Features
  Jia-Qi Yang, Chenglei Dai, OU Dan, Ju Huang, De-Chuan Zhan, Qingwen Liu, Xiaoyi Zeng, Yang Yang
  2023

Beyond Probability Partitions: Calibrating Neural Networks with Semantic Aware Grouping
  Jia-Qi Yang, De-Chuan Zhan, Le Gan
  2023

CONFERENCE PROCEEDINGS

IDToolkit: A Toolkit for Benchmarking and Developing Inverse Design Algorithms in Nanophotonics
  Jia-Qi Yang, Yucheng Xu, Jia-Lei Shen, Kebin Fan, De-Chuan Zhan, Yang Yang
  The 29th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2023

RID-Noise: Towards Robust Inverse Design under Noisy Environments
  Jia-Qi Yang, Ke-Bin Fan, Hao Ma, De-Chuan Zhan
  Thirty-Sixth AAAI Conference on Artificial Intelligence (AAAI), 2022

Generalized Delayed Feedback Model with Post-Click Information in Recommender Systems
  Jia-Qi Yang, De-Chuan Zhan
  Annual Conference on Neural Information Processing Systems (NeurIPS), 2022

Capturing Delayed Feedback in Conversion Rate Prediction via Elapsed-Time Sampling
  Jia-Qi Yang, Xiang Li, Shuguang Han, Tao Zhuang, De-Chuan Zhan, Xiaoyi Zeng, Bin Tong
  Thirty-Fifth AAAI Conference on Artificial Intelligence (AAAI), 2021

Towards Understanding Transfer Learning Algorithms Using Meta Transfer Features
  Xin-Chun Li, De-Chuan Zhan, Jia-Qi Yang, Yi Shi, Cheng Hang, Yi Lu
  Advances in Knowledge Discovery and Data Mining - 24th Pacific-Asia Conference (PAKDD), 2020

Bottom-Up and Top-Down Graph Pooling
  Jia-Qi Yang, De-Chuan Zhan, Xin-Chun Li
  Advances in Knowledge Discovery and Data Mining - 24th Pacific-Asia Conference (PAKDD), 2020

JOURNAL ARTICLES

Normalizing Flows for Efficient Inverse Design of Thermophotovoltaic Emitters
  Jia-Qi Yang, YuCheng Xu, Kebin Fan, Jingbo Wu, Caihong Zhang, De-Chuan Zhan, Biao-Bing Jin, Willie J. Padilla
  ACS Photonics (Mar. 2023). American Chemical Society (ACS), 2023

Corporate Relative Valuation Using Heterogeneous Multi-Modal Graph Neural Network
  Yang Yang, Jia-Qi Yang, Ran Bao, De-Chuan Zhan, Hengshu Zhu, Xiaoru Gao, Hui Xiong, Jian Yang
  IEEE Trans. Knowl. Data Eng. 35.1 (2023) pp. 211–224. 2023

Deep multiple instance selection
  Xin-Chun Li, De-Chuan Zhan, Jia-Qi Yang, Yi Shi

Work Experience

Taobao Search, Alibaba Inc. *Hangzhou, China*
Research Intern *2020 - 2020, 2022 - 2023*
- Analyzing the delayed feedback problem and designing a practical algorithm.
- Developing pre-training algorithm for the large-scale visual recommendation.

Achievements

2022	**Scholar Award**. NeurIPS'22, AAAI'22
2022	**National Scholarship for PhD student**.
2021	**HUAWEI Fellowship for Outstanding Contribution**. HUAWEI Lab
2018	**Champion(1/2116)**. Alibaba Global Scheduling Algorithm Competition
2018	**Most Exquisite Code Award**. Huawei Code Craft
2018	**KENSHO prize**. HackHarvard, Harvard Univeristy
2016	**Gold Award**. ICPC Asian Regional, HongKong Onsite
2016	**Silver Award**. ICPC Asian Regional, East Continent Final
2016	**Gold Award**. CCPC, South China Invitational Contest
2016	**Silver Award**. CCPC, Changchun Onsite
2015	**Bronze Award**. ICPC Asian Regional, Shanghai Onsite

Academic Service

CONFERENCE / JOURNAL REVIEWER

- ECML-PKDD'21, AAAI'21, ACML'21, SDM'21, AAAI'22, NeruIPS'22, UAI'22, AAAI'23, NeurIPS'23, ECAI'23, PAKDD'23, ICLR'23

- IEEE Transactions on Knowledge and Data Engineering, IEEE Transactions on Computational Social Systems, Chinese Journal of Electronics, Transactions on Intelligent Systems and Technology, Journal of Software, Journal of Computer Research and Development

TEACHING ASSISTANT

- 2023, Intelligent system design and application. with Prof. De-Chuan Zhan.

- 2021, Digital Signal Processing. with Prof. Han-Jia Ye.

- 2018, Advanced C++ Programming. with Prof. Shu-Jian Huang and Prof. Zhi-Qiang Zuo.