

Jiahang JIANG

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RESEARCH INTEREST

Interpretable Machine Learning, Sequential Recommendation, Dataset Distillation, Contextual Bandit

EDUCATION

Hong Kong University of Science and Technology GPA: 3.8/4.3
Ph.D. Candidate in Data Science and Analytics, Academy of Interdisciplinary Studies Sep. 2021 - Present
Research Interests in Interpretable Machine Learning, Sequential Recommendation, Dataset Distillation

Hong Kong University of Science and Technology GPA: 3.8/4.3
M.Sc. in Big Data Technology, School of Engineering Sep. 2020 - Jun. 2021

Nanjing University of Science and Technology GPA: 3.7/4.0 (Ranking: 2/74)
B.Eng. in Intelligent Science and Technology, School of Computer Science and Engineering Sep. 2016 - Jun. 2020

PREPRINTS AND PUBLICATIONS

(*: These authors contributed equally to the manuscript.)

[1] **Jiahang JIANG***, Liang Ding*, Tianyang Hu*, Donghao Li*, Wenjia Wang*, Yuan Yao*. "Random Smoothing Regularization in Kernel Gradient Descent Learning." *Journal of Machine Learning Research* 25.284 (2024): 1-88.

[2] **Jiahang JIANG***, Linghua TANG*, Mudi DUAN, Mingchao LI, Songtao YUAN, Qiang CHEN. "Automated detection algorithm of macular fovea in SD-OCT images." in *Proceedings of the 17th China Conference on Machine Learning*, pages 43, 2019.

[3] **Jiahang JIANG**, Wenjia WANG, Yun ZHANG, Guilin LI. "MDR: Boosting Sequential Recommendations with Dual-Domain Sufficient Embedding." *Submitted to IEEE International Conference on Data Mining*.

[4] **Jiahang JIANG**, Wenjia WANG. "Understanding Self-Supervised Dataset Distillation via Alignment and Uniformity." *To be Submitted to International Conference on Learning Representations*.

[5] Qingwen ZHANG, Wenjia WANG, **Jiahang JIANG**. "Uniform Fairness-aware Contextual Bandits." *To be Submitted to Journal of Machine Learning Research*.

INTERNSHIP

Weixin Group, Tencent Shenzhen, China
Research Intern in WeChat Pay Aug. 2024 - Mar. 2025

- Developed advanced user behavior sequence modeling for commercial transactions (patent-pending), improving fraud detection by over 20% in top 0.01% recall rate through online and offline evaluations.
- Fine-tuned large language models for payment data analysis, enabling characterization of fraud-induced user behaviors.
- Implemented advanced feature engineering for Key Account merchants, achieving over 92% accuracy in complaint category classification.

New Energy Vehicle Research Institute, YueBoo Power System Nanjing, China
Research Intern in Intelligent Driving and Perception Research Group Jul. 2020 - Aug. 2020

- Developed and optimized object detection algorithms for autonomous driving.

TEACHING ASSISTANT

DSAA5009 Deep Learning in Data Science (Spring 2023) HKUST

UFUG1105 Honors Calculus I (Fall 2023) HKUST

SKILLS

Language: English (Fluent), Mandarin (Native)

Programming Languages: Python, SQL, C/C++, Matlab, R

Machine Learning Frameworks: TensorFlow, PyTorch

Big Data Tools: PySpark, Hadoop

Backend Frameworks: Django

Visualization Tools: Tableau

AWARDS

International Chinese Statistical Association Honorable Mention Poster Award, July 2023

Outstanding Graduate of Nanjing University of Science and Technology, June 2020

Third Prize in 5th “Internet+” Entrepreneurship and Innovation Competition, Sep 2019

Third Prize in 10th “Lanqiao Cup” C/C++ Programming Competition, Mar 2019

Merit Student of Nanjing University of Science and Technology, Oct 2018/2019

First Prize Scholarship of Academic Year, Sep 2017/2019/2020