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Wenjie Wu

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Education

Shanghai, China **Shanghai Jiao Tong University** **Sep. 2022 – Present**

- M.E. in Control Science and Engineering. GPA: 3.86 / 4.00. Rank: 3 / 53. Advisor: Junchi Yan.
- Graduate Coursework: Matrix Theory; Optimization Method; Stochastic Methods in Systems & Control; Data Mining; Intelligent Information Processing; Academic English.

Shanghai, China **Shanghai Jiao Tong University** **Sep. 2018 – Jun. 2022**

- B.E. in Automation (Direction of Artificial Intelligence) with honor, June 2022. Minor: Computer Science. In-major GPA: 3.90 / 4.30. Rank: 1 / 115.
- Undergraduate Coursework: Computer Vision; Intelligent Robot; Artificial Intelligence; Machine Learning; Digital Image Processing; Data Structure; College Physics; Probability & Statistics; Mathematical Analysis.

Employment

Algorithm Engineer, Intern **ByteDance** **Jun. 2024 – Present**

- To increase TikTok's Daily Active Users (DAU), A/B testing is conducted for different brand parties and combinations of paid features.
- An uplift model for message push is trained to enhance the click-through rate of the pushes.

Algorithm Engineer, Intern **Shanghai AI Laboratory** **Mar. 2024 – Jun. 2024**

- Constructing a systematic framework to extract structured data from multi-modal scientific documents for downstream tasks (such as chart understanding).

Software Engineer, Intern **XYZ Robotics** **Nov. 2021 – Feb. 2022**

- Improved the efficiency and space utilization of traditional 3D bin packing methods.
- Utilized reinforcement learning to solve the 3D bin packing problem.
- Tested our algorithm in both simulation platform and real scenes.

Algorithm Engineer, Intern **Hikvision** **Jul. 2021**

- Corrected text errors in Chinese newspapers by the BERT model.

Research Experience

Undergraduate Internship **MARS Lab, Tsinghua University** **Apr. 2021 – Jul. 2021**

- Mentor: Hang Zhao.
- Applied knowledge distillation techniques to 3D point cloud detection in autonomous driving scenes.

Undergraduate Internship **SJTU** **Jul. 2020 – Mar. 2021**

- Mentor: Bingbing Ni.
- Diagnosed and segmented adrenal anomalies from CT scans with 3D deep learning.

SJTU PRP Program **PAMI Lab, SJTU** **Apr. 2019 – Apr. 2020**

- Mentor: Yu Qiao.
- Used CNNs to recognize violations in photos taken on streets, and awarded as a Class-A program.

Research Publications

[1] **W. Wu**, G. Yan, X. Lu, et al., "QuantumDARTS: differentiable quantum architecture search for variational quantum algorithms", *ICML*, 2023.

[2] X. Lu, K. Pan, G. Yan, J. Shan, **W. Wu** and J. Yan, ”QAS-bench: rethinking quantum architecture search and a benchmark”, *ICML*, 2023.
[3] **W. Wu**, Y. Wang, G. Yan, et al., ”On Reducing the Execution Latency of Superconducting Quantum Processors via Quantum Job Scheduling”, *ICCAD*, 2024
[4] R. Xia, …, **W. Wu**, et al., ”DocGenome: An Open Large-scale Scientific Document Benchmark for Training and Testing Multi-modal Large Language Models”, *In submission*, 2024
[5] **W. Wu**, C. Fan, J. Huang, Z. Liu and J. Yan, ”Machine Learning for the Multi-Dimensional Bin Packing Problem: Literature Review and Empirical Evaluation”, *In submission*, 2023.
[6] **W. Wu** and J. Yan, ”Research on Dynamic Bin Packing Problem and Design of Intelligent Algorithm”, *Bachelor Thesis*, 2022.

Selected Honors and Competitions

2023	Grand Prize in Quantum Computing Track of ”Challenge Cup” National Contest (Top 5).
2023	First Prize in CCF ”Sinan Cup” Quantum Computing Contest.
2022 – 2023	National Scholarship for Graduate Students (Top 1%).
2022	Outstanding Graduates of Shanghai Jiao Tong University.
2020 – 2021	National Scholarship for Undergraduate Students (Top 1%).
2020	Honorable Mention in Interdisciplinary Contest In Modeling (ICM).
2018 – 2022	Three-Good Student of Shanghai Jiao Tong University (Three times).
2018 – 2022	Zhiyuan Honor Scholarship in Shanghai Jiao Tong University (Four times).
2018 – 2022	Shuping Scholarship (Four times).

Skills

- **Programming Languages:** Python, C/C++, Matlab, etc.
- **Deep Learning:** PyTorch, Gym, Numpy, etc.
- **Languages:** TOEFL: 105 (Jul. 2020), CET6: 631, CET4: 620.
- **Miscs:** Football.

Academic Services

- Reviewers in NeurIPS 2023, ICLR 2024.