



Xuan Wu

NEURAL COMBINATORIAL OPTIMIZATION · EVOLUTIONARY COMPUTATION

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Education

Jilin University

PH.D. IN COLLEGE OF COMPUTER SCIENCE AND TECHNOLOGY

- Outstanding Graduate Student of Jilin University, First Prize Graduate Scholarship of Jilin University

Changchun, China

Sep. 2022 - current

Nanyang Technological University

VISITING PH.D. STUDENT IN COLLEGE OF COMPUTING AND DATA SCIENCE

- Scholarship of China Scholarship Council

Singapore

Nov. 2023 - Nov. 2024

Jilin University

M.Sc. IN COLLEGE OF COMPUTER SCIENCE AND TECHNOLOGY

- Graduate Academic Scholarship

Changchun, China

Sep. 2020 - Jul. 2022

Jilin University

B.Sc. IN COLLEGE OF COMPUTER SCIENCE AND TECHNOLOGY

- Outstanding Student of Jilin University, Second Prize Scholarship of Jilin University

Changchun, China

Sep. 2016 - Jul. 2020

Selected Publications

JOURNAL ARTICLES

- X. Wu**, D. Wang, H. Chen, et al., "Neural architecture search for text classification with limited computing resources using efficient Cartesian genetic programming," IEEE Transactions on Evolutionary Computation, vol. 28, no. 3, pp. 638–652, 2024.
- X. Wu**, J. Han, D. Wang, et al., "Incorporating Surprisingly Popular Algorithm and Euclidean distance-based adaptive topology into PSO," Swarm and Evolutionary Computation, vol. 76, p. 101222, 2023.
- Z. Cao*, **X. Wu***, C. Wu, et al., "KeypointNet: An Efficient Deep Learning Model with Multi-View Recognition Capability for Sitting Posture Recognition," Electronics, vol. 14, p. 4, 2025.
- Y. Xiao, D. Wang, **X. Wu**†, et al., Improving generalization of neural vehicle routing problem solvers through the lens of model architecture, **Neural Networks**, vol. 187, p. 107380, 2025.
- J. Sun, **X. Wu**, Y. Xiao, et al., "DANet: Temporal Action Localization with Double Attention," Applied Sciences-basel, vol. 13, 2023.

CONFERENCE PROCEEDINGS

- X. Wu**, D. Wang, C. Wu, et al., Efficient Heuristics Generation for Solving Combinatorial Optimization Problems Using Large Language Models, in Proceedings of the ACM SIGKDD Conference on Knowledge Discovery and Data Mining, 2025.
- W. Song*, **X. Wu***, B. Yang, et al., Towards Efficient Few-shot Graph Neural Architecture Search via Partitioning Gradient Contribution, in Proceedings of the ACM SIGKDD Conference on Knowledge Discovery and Data Mining, 2025.
- X. Wu**, J. Huang, X. Fu, et al., "The Novel Characterizing Method of Collective Behavior Pattern in PSO," in Proceedings of ACIS/IEEE International Conference on Computer and Information Science, 2023, pp. 59–72.
- Y. Li, Y. Xiao, **X. Wu**, et al., "Leveraging hierarchical similarities for contrastive clustering," in Proceedings of International Conference on Neural Information Processing, 2023.

PRE-PRINTS

- X. Wu**, D. Wang, L. Wen, et al., Neural Combinatorial Optimization Algorithms for Solving Vehicle Routing Problems: A Comprehensive Survey with Perspectives, arXiv: 2406.00415, 2024.
 - Y. Xiao, D. Wang, **X. Wu**†, et al., From Global Assessment to Local Selection: Efficiently Solving Traveling Salesman Problems of Varying Sizes, Under Review.
- ★ equal contributions, † corresponding authors

Academic Services

CONFERENCE REVIEWER

- ICLR'2025

JOURNAL REVIEWER

- IEEE TNNLS, IEEE TEVC