Hongzong LI

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EDUCATION BACKGROUND

Ph.D. candidate: Computer Science   **2020.01-Present**

Department of Computer Science, City University of Hong Kong, Kowloon, Hong Kong.
Supervised by: Prof. WANG Jun and Prof. ZHANG Qingfu.
Scholarships and Financial Aids: Postgraduate Studentship (HK$17,510 per month), Institutional Research Tuition Grant (HK$3,508 per month).

Bachelor of Engineering: Automation   **2016.09-2020.06**

College of Information Science and Engineering, Northeastern University, Shenyang, China.
Overall GPA: 3.9891/5 - Ranking within Top 5%.
Major courses: Graduation Thesis (A), Scientific Computing with MATLAB (96), Analog Electronic Circuits (93), Digital Electronic Circuits (95), Digital Signal Processing (98), Modern Optimization Algorithms (98), Microcomputer Principle and programming (92), Principle of Automatic Control (94), Modern Control Theory (96), The Computer Simulation Technology (99), Modeling and Control of Hybrid Systems (96).

HONORS & AWARDS

- Outstanding Graduates of Liaoning Province in 2020
- The Special Prize of excellent students of Baosteel in 2019 (20,000 CNY)
- The Fourth most influential graduate of the College in 2020
- The First Prize of "Ti" Cup Electronic Design Competition for undergraduate students in Liaoning Province
- The Special Prize of the 7th China TRIZ Cup Undergraduate Innovation method competition
- The First Prize of the fourth Liaoning "TRIZ Cup" college students innovation method competition
- Northeast University (2019) "national innovation training program for college students" - National Excellent
- Northeast University (2019) "national innovation training program for college students" - my favorite innovation program for College Students
- Northeast University (2018) "national innovation training program for college students" - provincial qualification
- The Second Prize of the 17th Undergraduate Electronic Design Competition of "Jianlong iron and steel" of Northeast University in 2018
- The Third Prize of the fourth Internet plus China Northeastern University Student Competition
- First class scholarship for outstanding students of Northeast University (2018-2019)
- First class scholarship for outstanding students of Northeast University (2019-2020)
- Third class scholarship for outstanding students of Northeast University (2016-2017)
- Third class scholarship for outstanding students of Northeast University (2017-2018)

TEACHING & INTERNSHIP

Sep. 2022 – Dec. 2022: Teacher in CS5486 Intelligent Systems at CityU.

Jan. 2023 – Apr. 2023: Teaching assistant in CS4386 AI Game Programming at CityU.

Jan. 2022 – Apr. 2022: Teaching assistant in GE2313 Global IT Case Studies at CityU.

Jan. 2021 – Apr. 2021: Teaching assistant in CS1302 Introduction to Computer Programming at CityU.

Aug. 2019 – Sep. 2019: AXA Internship Experience in Hong Kong.

Aug. 2019 – Sep. 2019: Volunteer at the International Voluntary Day held in Hong Kong.

ACADEMIC SERVICE

Reviewer of the following journals:
IEEE Transactions on Consumer Electronics
Mathematical Biosciences and Engineering

Provide conference-related services:
The 11th, and 12th International Conference on Information Science and Technology (ICIST), 2021, and 2022
The 11th International Conference on Intelligent Control and Information Processing (ICICIP), 2021

PUBLICATION

H. Li and J. Wang, "CAPKM++ 2.0: An upgraded version of the collaborative annealing power k-means++ clustering algorithm," Knowledge-Based Systems, p. 110241, 2023.

H. Li and J. Wang, "Collaborative annealing power k-means++ clustering," Knowledge-Based Systems, vol. 255, p. 109593, 2022.

H. Li and J. Wang, "Capacitated clustering via majorization minimization and collaborative neurodynamic optimization," IEEE Transactions on Neural Networks and Learning Systems, 2022.

H. Li and J. Wang, "Collaborative neurodynamic algorithms for solving Sudoku puzzles," in 2022 12th International Conference on Information Science and Technology (ICIST). IEEE, 2022, pp. 8–17.

H. Li, J. Wang, and J. Wang, "Solving the travelling salesman problem based on collaborative neurodynamic optimization with discrete Hopfield networks," in 2021 11th International Conference on Information Science and Technology (ICIST). IEEE, 2021, pp. 456–465.

H. Li and J. Wang, "A collaborative neurodynamic optimization algorithm based on Boltzmann machines for solving the traveling salesman problem," in 2021 11th International Conference on Intelligent Control and Information Processing (ICICIP). IEEE, 2021, pp. 325–333.

R. Zhang, **H. Li**, and J. Wang, "Index tracking based on dynamic time warping and constrained k-medoids clustering," in 2021 11th International Conference on Intelligent Control and Information Processing (ICICIP). IEEE, 2021, pp. 352–359.

NB: The following papers are published during my undergraduate studies. Dong Xiao is my supervisor.

D. Xiao, **H. Li**, and X. Sun, "Coal classification method based on improved local receptive field-based extreme learning machine algorithm and visible–infrared spectroscopy," ACS omega, vol. 5, no. 40, pp.25 772–25 783, 2020.

D. Xiao, **H. Li**, C. Liu, and Q. He, "Large-truck safety warning system based on lightweight SSD model," Computational intelligence and neuroscience, vol. 2019, 2019.

D. Xiao, **H. Li**, B. T. Le, S. Zhang, J. Wang, D. He, and X. Fu, "Research on a method of gross error elimination for slope monitoring data based on machine learning," IEEE Access, vol. 7, pp. 164 682–164 695, 2019.

D. Xiao, **H. Li**, Z. Ji, E. Xu, B. Luo, and J. Chen, "An anti-collision early warning system for mine trucks based on RBF network and wifi," in Journal of Physics: Conference Series, vol. 1631, no. 1. IOP Publishing, 2020, p. 012157.

D. Xiao, **H. Li**, and G. Jiang, "Spectral and BP neural network research on classification of iron ore," in Proceedings of the 2019 International Conference on Artificial Intelligence and Computer Science, 2019, pp.239–242.

D. Xiao, Q. He, **H. Li**, and C. Liu, "Real-time monitoring of mine landslide based on Gaussian mixture model," in Proceedings of the 2019 International Conference on Artificial Intelligence and Computer Science, 2019, pp. 468–471.

D. Xiao, B. T. Le, Z. Yu, C. Liu, **H. Li**, Q. He, H. Xie, and J. Wang, "A method of fault monitoring and diagnosis for the thickener in hydrometallurgy," IEEE Access, vol. 7, pp. 142 317–142 324, 2019.

D. Xiao, H. Xie, L. Jiang, B. T. Le, J.Wang, C. Liu, and **H. Li**, "Research on a method for predicting the underflow concentration of a thickener based on the hybrid model," Engineering Applications of Computational Fluid Mechanics, vol. 14, no. 1, pp. 13–26, 2020.

PATENT

NB: Dong Xiao is my supervisor.

Patents of Invention:

Anti-collision method and device for mine car, Dong Xiao, **Hongzong LI**, Qifei He.
Mine truck anti-collision warning system and method based on radar and WIFI, Dong Xiao, **Hongzong LI**, Qifei He.
Method and device for detecting iron content in iron ore, Dong Xiao, Guotai Jiang, **Hongzong Li**, Zeyuan Zhang.

Software Copyrights:

Vehicle panoramic assisted driving system, Dong Xiao, **Hongzong LI**, Qifei He.
WIFI-based anti-collision warning system for mining trucks, Dong Xiao, **Hongzong LI**, Qifei He.

Patent of Utility Model:

Anti-collision device for mine car, Dong Xiao, **Hongzong LI**, Qifei He.
Mine truck anti-collision warning system based on radar and WIFI, Dong Xiao, **Hongzong LI**, Qifei He.

RELEVANT SKILLS

Programming: MATLAB, Python, C++, HTTP
Languages: Chinese (Native), English (Fluent)