Ying Bi | PhD Candidate in Computer Science

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Education

Victoria University of Wellington	**Wellington, New Zealand**
PhD Candidate in Computer Science	*2017-Present*

Supervisors: Prof. Mengjie Zhang and A/Prof. Bing Xue

Shenzhen University	**Shenzhen, China**
M.Sc. in Management Science and Engineering	*2013 - 2016*

Supervisor: Prof. Ben Niu

Wuhan Polytechnic University	**Wuhan, China**
B.S. degree in Management	*2009 - 2013*

Publications

Refereed Journal Articles

1. Harith Al-Sahaf, Ying Bi, Qi Chen, Yi Mei, Yanan Sun, Binh Tran, Bing Xue, and Mengjie Zhang. A survey on evolutionary machine learning. Journal of the Royal Society of New Zealand. DOI:10.1080/03036758.2019.1609052.

2. Ying Bi, Bing Xue, and Mengjie Zhang. A Survey on Genetic Programming to Image Analysis. Journal of Zhengzhou University (Engineering Science). Vol. 39, No. 06. 2018. pp.3-13. (In Chinese).

3. Niu, Ben, Ting Xie, Lijing Tan, Ying Bi, and Zhengxu Wang. Swarm Intelligence Algorithms for Yard Truck Scheduling and Storage Allocation Problems. Neurocomputing. vol. 188, 2016. pp. 284-293.

4. Liu, Yanmin, Ying Bi, Changling Sui, Yuanfeng Luo, Zhuanzhou Zhang, and Rui Liu. Simulation Study of Swarm Intelligence Based on Life Evolution Behavior. Discrete Dynamics in Nature and Society. vol. 2015. Article ID 291298, 11 pages.

Refereed Book Chapters and LNCS/LNAI Publications

5. Ying Bi, Bing Xue, Mengjie Zhang. A Gaussian Filter-Based Feature Learning Approach Using Genetic Programming to Image Classification. Proceedings of the 31st Australasian Joint Conference on Artificial Intelligence (AI2018), Lecture Notes in Computer Science. Vol. 11320. Springer. Wellington, New Zealand.11-14 December 2018. pp. 251-257.

6. Ying Bi, Bing Xue, Mengjie Zhang. An Automatic Feature Extraction Approach to Image Classification Using Genetic Programming. Proceeding of the 21th European Conference on Applications of Evolutionary Computation (EvoApplications 2018). Lecture Notes in Computer Science. Vol. Parma, Italy. 4-6 April 2018. pp. 421- 438.

Xiaoyue Fu, Felix TS Chan, Ben Niu, SH Chung, and Ying Bi. Minimization of makespan through jointly scheduling strategy in production system with mould maintenance consideration. In:

Huang DS., Bevilacqua V., Premaratne P., Gupta P. (eds) Intelligent Computing Theories and Application. ICIC 2017. Lecture Notes in Computer Science, vol 10361. Springer, Cham. 2017, pp. 576-586

7. Ben Niu, Ying Bi, Felix TS Chan, and ZX Wang. SRBFO Algorithm for Production Scheduling with Mold and Machine Maintenance Consideration. In: Huang DS., Jo KH., Hussain A. (eds) Intelligent Computing Theories and Methodologies. ICIC 2015. Lecture Notes in Computer Science, vol 9226. Springer, Cham. 2015, pp. 733-741.

8. Ben Niu, Ying Bi, and Ting Xie. Structure-redesign-based Bacterial Foraging Optimization for Portfolio Selection. In: Huang DS., Han K., Gromiha M. (eds) Intelligent Computing in Bioinformatics. ICIC 2014. Lecture Notes in Computer Science, vol 8590. Springer, Cham. 2014, pp. 424–430.

9. Xiaoxian He, Jie Wang, and Ying Bi. A novel branch-leaf growth algorithm for numerical optimization.In: Huang DS., Jo KH., Hussain A. (eds) Intelligent Computing Theories and Methodologies. ICIC 2015. Lecture Notes in Computer Science, vol 9226. Springer, Cham. 2015, pp. 742–750.

10. Ben Niu, Ting Xie, Ying Bi, and Jing Liu. Bacterial Colony Optimization for Integrated Yard Truck Scheduling and Storage Allocation Problem. In: Huang DS., Han K., Gromiha M. (eds) Intelligent Computing in Bioinformatics. ICIC 2014. Lecture Notes in Computer Science, vol 8590. Springer, Cham. 2014, pp. 431–437.

Refereed International Conference Paper...

11. Ying Bi, Bing Xue, and Mengjie Zhang. An Automated ensemble Learning Framework Using Genetic Programming for Image Classification. Accepted by 2019 Genetic and Evolutionary Computation Conference (GECCO).

12. Ying Bi, Bing Xue, and Mengjie Zhang. An Evolutionary Deep Learning Approach Using Genetic Programming with Convolution Operators for Image Classification. Accepted by 2019 IEEE Congress on Evolutionary Computation (CEC).

13. Ying Bi, Mengjie Zhang, and Bing Xue. Genetic Programming for Automatic Global and Local Feature Extraction to Image Classification. 2018 IEEE Congress on Evolutionary Computation (CEC). IEEE Press. Rio de Janeiro, Brazil. 8-13 July 2018. pp. 1-8. (**Nominated as Best Student Paper Award**)

14. Ying Bi, Mengjie Zhang and Bing Xue. An Automatic Region Detection and Processing Approach in Genetic Programming for Binary Image Classification. Proceedings of 2017 the 32th International Conference on Image and Vision Computing New Zealand (IVCNZ 2017). IEEE Press. Christchurch, New Zealand. 4 - 6 December 2017. pp. 1-6.

15. Yi Wang, Ying Bi, Ting Xie, and Jing Liu. Evaluation of the Comprehensive Strength of the Listed Companies in China's Cultural Media Industry. 2015 12th International Conference on Service Systems and Service Management (ICSSSM). IEEE Press. Guangzhou, China. 22-24 June 2015. pp. 1–5.

16. Chen Guo, Zhiwen Guo, Ben Niu, and Ying Bi. A hybrid bacterial foraging optimization based on time-varying chemotaxis step and dynamic topology structure. 2015 International Conference on Materials, Environmental and Biological Engineering (MEBE 2015). Atlantis Press. Guilin, China. 28-30 March 2015. pp. 587-590.

17. Ben Niu, Jing Liu, Ying Bi, Ting Xie, and Lijing Tan. Improved bacterial foraging optimization algorithm with information communication mechanism. In 2014 Tenth International Conference on Computational Intelligence and Security (CIS). IEEE Press. Kunming, China. 15-16 Nov. 2014. pp. 47–51.

18. Ben Niu and Ying Bi. Binary Bacterial Foraging Optimization for 0/1 Knapsack Problem. In 2014 IEEE Congress on Evolutionary Computation (CEC). IEEE Press. Beijing, China. 6-11 July 2014. pp. 647–652.
19. Hanyang Luo, Jingjing Wang, and Ying Bi. Empirical research on consumers' intention to purchase online2014 11th International Conference on Service Systems and Service Management (ICSSSM). IEEE Press. Beijing, China. 25-27 June 2014. pp. 1-5.

Submitted Paper..

20. Ying Bi, Bing Xue, and Mengjie Zhang. An Effective Feature Learning Approach Using Genetic Programming with Image Descriptors for Image Classification. Submitted to IEEE Computational Intelligence Magazine.
21. Ying Bi, Bing Xue, and Mengjie Zhang. Learning Discriminative Features Using Genetic Programming for Binary Image Classification. Submitted to Evolutionary Computation (MIT Press).
22. Harith Al-Sahaf, Ying Bi, Qi Chen, Andrew Lensen, Yi Mei, Yanan Sun, Binh Tran, Bing Xue, and Mengjie Zhang. A Survey on Evolutionary Machine Learning. Submitted to Journal of Royal Society of New Zealand.

Grants

- 2015-2016: Distributed Production Scheduling Based on Bacterial Foraging Optimization, Shenzhen University Graduate Student Innovation Development Fund Project (PI)

Awards

- PGSA Academic Conference Grant ($ 500 NZ), Victoria University of Wellington, 2019
- Faculty Strategic Research Grant from Victoria University of Wellington ($3000 NZD), 2019
- IEEE Computational Intelligence Society Student Travel Award ($800 USD), 2018
- Faculty Strategic Research Grant from Victoria University of Wellington ($3000 NZD), 2018
- Oversea PhD Scholarship, China Scholarship Council, 2016-2020
- National Scholarship for Postgraduate Students, Oct 2015 (It is currently the highest-level scholarship for the master students in China)
- National Scholarship for Postgraduate Students, Dec 2014 (It is currently the highest-level scholarship for the master students in China)
- Excellent Graduate of Shenzhen University, Jun 2016
- Excellent Graduate of Guangdong Province, Jun 2016
- Second Prize of Changing Cup for Students Extracurricular Academic & Scientific Technology Competition, Jun 2015 (University Level, as leader)
- First Prize of the Tenth "Jing Shi Zhi Zuo" competition of College of Economic of Shenzhen University, May 2015
- First Prize of the Ninth "Jing Shi Zhi Zuo" competition of College of Economic of Shenzhen University, May 2014
- Excellent Graduate of Wuhan Polytechnic University, Jun 2013
- Outstanding Youth Volunteers of Wuhan Polytechnic University, May 2012
- Third Grade Prize of the XXXII Global Management Challenge of China Competition, Dec 2011
- Outstanding Students of Wuhan Polytechnic University, Nov 2011
- Second Prize Scholarship for Academic Excellence, Wuhan Polytechnic University, Dec 2011
- First Prize Scholarship for Academic Excellence, Wuhan Polytechnic University, Dec 2010

- o Second Grade Prize of the XXXI Global Management Challenge of China Competition, Oct 2010
- o Outstanding Students of Wuhan Polytechnic University, Oct 2010

Academic Activity

- o Local organization committee member of AI2018 and CEC2019
- o Member of IEEE 2016 - Present

Program Committee Member for **International Conference**...................................

- o The Genetic and Evolutionary Computation Conference 2019
- o IEEE Symposium Series on Computational Intelligence 2019
- o The 31th Australasian Joint Conference on Artificial Intelligence (AI), 2018
- o The 10th International Conference on Advanced Computational Intelligence (ICACI), 2018

Peer Reviewer for **International Journal**...

- o IEEE Transactions on Evolutionary Computation
- o IEEE Transactions on Cybernetics
- o IEEE Computational Intelligence Magazine
- o Swarm and Evolutionary Computation
- o Natural Computing
- o Soft Computing
- o Applied Soft Computing
- o Science China Information Sciences
- o Engineering Applications of Artificial Intelligence
- o Neurocomputing
- o Complex & Intelligent Systems
- o International Journal of Computer Information Systems and Industrial Management Applications

Peer Reviewer for **International Conference**...

- o IEEE Congress on Evolutionary Computation (CEC), 2019
- o The Genetic and Evolutionary Computation Conference (GECCO), 2019
- o IEEE Symposium Series on Computational Intelligence (SSCI), 2017, 2018
- o Australia Joint Conference on Artificial Intelligence (Australian AI), 2018
- o The 15th Pacific Rim International Conference on Artificial Intelligence (PRICAI), 2018
- o The Third International Conference on Data Mining and Big Data (DMBD), 2018

Work Experience

- o Tutor for COMP307 (Introduction to Artificial Intelligence), Victoria University of Wellington. March-July 2019
- o Tutor for COMP132 (Programming for the Natural and Social Sciences), Victoria University of Wellington. July-October 2018
- o Tutor for COMP307 (Introduction to Artificial Intelligence), Victoria University of Wellington. March-July 2018
- o Research Assistant, Shenzhen University. 2015-2016