

Min JIANG

## Curriculum Vitae

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### Overview

Dr. Min JIANG (MIEEE'11-SMIEEE'12) received his bachelor and Ph.D. degrees in computer science from Wuhan University, China, in 2001 and 2007, respectively. Subsequently as a postdoc in the Department of Mathematics of Xiamen University. Currently he is a professor in the Department of Artificial Intelligence, Xiamen University. His main research interests are Machine Learning, Optimization, Computational Intelligence and Neural-symbolic Integration. Dr. Jiang is the Chair of IEEE CIS Xiamen Chapter and he is a senior member of IEEE.

### Education and Qualifications

1999 - 2001	B.Sc.	Wuhan University	Computer Science
2001 - 2007	Ph.D.	Wuhan University	Computer Science
2005-2007	Visiting student	City University of Hong Kong	Computer Science

### Positions

2019.7 - present	Professor, Department of Artificial Intelligence, Xiamen University.
2019.7 - present	Associate Head, Department of Artificial Intelligence, Xiamen University.
2018.8 - 2019.7	Professor, Department of Cognitive Science and Technology, Xiamen University.
2018.9 - 2019.7	Associate Head, Department of Cognitive Science and Technology, Xiamen University.
2016.3 - 2017.3	Visiting Scholar (CSC Scholarship), Department of EECS, Oklahoma State University, USA Cooperative professor is Regents Professor Gary G. YEN
2011.8 - 2018. 8	Associate Professor, Department of Cognitive Science and Technology, Xiamen University.
2009.8-2011.8	Assistant Professor, Department of Cognitive Science and Technology, Xiamen University.
2007.9-2009.7	Postdoc Researcher, Department of Mathematics, Xiamen University.

### Honours and awards

2019	2019 Chinese Artificial Intelligence Associate WU Wenjun Natural Science Award (Third Prize)
2018	2018 Fujian Natural Science Outstanding Paper Award (Third Prize)
2016	2016 IEEE CIS Outstanding Chapter Award (Chair of Xiamen Chapter)
2016	2016 IEEE Transactions on Cybernetics Outstanding Reviewer Award
2016	2016 Industrial & Commercial Bank of China Excellent Teaching Award
2015	National Intelligent Design Contest for College Students, The Third Prize (Supervisor)
2015	National Intelligent Products Design & Creation Competition, The Second Prize (Supervisor)
2014	IEEE Ghosts Challenge 2014, the First Prize and the Third Prize (Supervisor)
2014	Race of Champions 13'-14 of IEEE Ghosts Challenge, Champion (Supervisor)
2013	IEEE Ghosts Challenge 2013, the First Prize (Supervisor)

### Membership of Associations

- IEEE, Senior Member(2012)
- IEEE Computational Intelligence Society, Intelligent Systems and Applications Technical Committee, Chair (2019 - 2020 )

- IEEE Computational Intelligence Society, Beijing Section Xiamen Chapter, Founding Chair (2013-)
- IEEE Computational Intelligence Society, Social Media Subcommittee, Vice Chair (2013- )
- IEEE Computational Intelligence Society, Chapters Subcommittee, Member (2015- )
- IEEE Computational Intelligence Society, Emergent Technologies Technical Committee, Member , (2012-2016 )
- China Computer Federation, Theoretical Computer Science Committee, Member, (2012 - )
- IEEE Computational Intelligence Society, the Robotics Task Force on the Intelligent Systems Applications Technical Committee, Member (2013-)
- IEEE Computational Intelligence Society, Task Force on Towards Human-like Intelligence, Member (2013-)
- Fujian Associate for Artificial Intelligence, Member of Council.

### Research

My current research interests mainly include Machine Learning and Computational Intelligence. More specifically, I am interested in: Transfer Learning, Deep Learning, (Dynamic) Multi/Many-objective Optimization, Estimation of Distribution Algorithms and their applications on Intelligent Robotics.

### Grants

- 2017-2020 Min JIANG (PI). "Evolving Deep Learning for Heterogeneous Robotics and Its Transfer Method". Funding from the National Natural Science Foundation of China.
- 2016-2017 Min JIANG (PI). "Dynamic Many-objective Optimizations". Funding from China Scholarship Council.
- 2015-2015 Min JIANG (PI). "Transfer Learning and Robotics". Funding from Foundation of Xiamen University's President.
- 2011-2013 Min JIANG (PI). "Uncertain Spatio-temporal Cognition in Autonomous Robots and Its Neural-Symbolic Realization". Funding from the National Natural Science Foundation of China.
- 2011-2013 Min JIANG (PI). "Phase Transition and Game Spatio-temporal Epistemic Logic". Funding from the Ph.D. Programs Foundation of Ministry of Education of China.
- 2015-2015 Min JIANG (PI). "Spatio-temporal Epistemic Logic and its Application for Intelligent Robotics". Funding from Natural Science Foundation of Fujian Province.
- 2007-2009 Min JIANG (PI). "Model Checking Based on Epistemic Logic and Algorithmic Game Theory: Theory, Tools and Application". Funding from China Postdoctoral Science Foundation.

### Academic Activities

- IEEE Transactions on Neural Networks and Learning Systems, Associate Editor, (2020.1 - )
- IEEE Transactions on Cognitive and Developmental Systems, Associate Editor, (2017.1 - )
- IEEE Systems Journal, Special Issue of Human-like Intelligence and Robotics, Guest Editor, (Sep. 2017)
- The 8th International Conference on Intelligent Robotics and Applications (ICIRA2015), Special Session on Knowledge and Skills Transfer among Heterogeneous Robots. (Organizer)
- 2016 IEEE World Congress on Computational Intelligence (IEEE WCCI 2016), Special Session on Computational Intelligence for Knowledge and Skills Transfer: Theories, Algorithms and Applications , (Organizer)
- IEEE SSCI 2019, Finance Chair, Xiamen, China
- IEEE WCCI 2016, Publicity Chair, Vancouver, Canada

- The Tenth International Conference on Advanced Computational Intelligence, (ICACI 2018), Organizing Chair, Xiamen, China
- Summer School of Evolutionary Computation and Multi-objective Optimization, Lecturer: Prof. Gary G. YEN, 2014/07/19-2014/07/23 (Organizer)
- Summer School of Evolutionary Computation and Multi-objective Optimization, Lecturer: Prof. Gary G. YEN, 2012/07/03-2012/07/10 (Organizer)
- The 13th International Symposium on Neural Networks (ISNN 2016), PC Member
- 2015 IEEE Symposium on Computational Intelligence for Human-like Intelligence (CIHLI 2015), PC Member
- 2016 IEEE Symposium on Computational Intelligence for Human-like Intelligence (CIHLI 2016), PC Member
- 2017 IEEE Symposium on Computational Intelligence for Human-like Intelligence (CIHLI 2017), PC Member
- 2018 IEEE Symposium on Computational Intelligence for Human-like Intelligence (CIHLI 2018), PC Member
- The Sixth International Conference on Intelligent Control and Information Processing, ICICIP 2015, PC Member
- The Seventh International Conference on Intelligent Control and Information Processing, ICICIP 2016, PC Member
- The 12th International Symposium on Neural Networks, (ISNN 2015), PC Member
- The 13th International Symposium on Neural Networks, (ISNN 2016), PC Member
- The 14th International Symposium on Neural Networks, (ISNN 2017), PC Member
- The 14th International Symposium on Neural Networks, (ISNN 2018), PC Member
- The 8th International Conference on Intelligent Robotics and Applications (ICIRA2015), Special Session on Knowledge and Skills Transfer among Heterogeneous Robots. (Organizer)
- 2015 National Conference of Theoretical Computer Science ( NCTCS 2015 ), PC Member
- 2016 National Conference of Theoretical Computer Science ( NCTCS 2016 ), PC Member
- 2017 National Conference of Theoretical Computer Science ( NCTCS 2017 ), PC Member
- 2018 National Conference of Theoretical Computer Science ( NCTCS 2018 ), PC Member
- The Eighth International Conference on Advanced Computational Intelligence, (ICACI 2016), PC Member
- The Tenth International Conference on Advanced Computational Intelligence, (ICACI 2018), PC Member
- AGI'2011, NCTCS'2011, ICACI'2012, NCTCS'2012, NCTCS'2013, ICACI'2013, ISNN'2013, ICIST'2013, NCTCS'2014, ICICIP'2014, ICACI'15, PC members
- I am/was reviewers of different journals, such as IEEE Transactions on Cybernetics, IEEE Transactions on Evolutionary Computation, IEEE Transactions on Emerging Topics in Computational Intelligence, IEEE Transactions on Neural Networks and Learning Systems, IEEE Transactions on Autonomous Mental Development, Soft Computing, Neurocomputing, International Journal of Humanoid Robotics, Algorithmica and IEEE International Conference on Robotics and Automation (ICRA'2017, ICRA'2018).

## Invited talks

- The Sixth Conference on Artificial General Intelligence, Neural-Symbolic Methods for Learning and Transforming Embodied Knowledge in Heterogeneous Robotics, Beijing, 2013-08-01.
- The Third International Workshop on Advanced Computational Intelligence and Intelligent Informatics , Neural-Symbolic Methods for Learning and Transforming Embodied Knowledge in Heterogeneous Robotics, Shanghai, 2013-10-20.

## Consulting

- TEN times I have provided expert witness in different cases.

## Teaching

- “Introduction to Intelligent Robotics” (Postgraduate)(2009-2015, 2017)
- “Introduction to Intelligent Robotics” (Graduate)(2017)
- “Mathematical Logic ” (Graduate) (2009-2015, 2017)
- “Mathematical Logic ” (Postgraduate) (2013)
- “Practice Course of Data Structure” (Graduate)(2009-2014)
- “Frontier Lect to Artificial Intelligence” (Postgraduate) (2010,2011,2013,2014)

## Publications

### Journal papers (Selected)

1. Guo, S., J. Yu, X. Shi, H. Wang, F. Xie, X. Gao, and M. Jiang (2020). Droplet-Transmitted Infection Risk Ranking Based on Close Proximity Interaction. *Frontiers in Neurorobotics* 13. (Correspondence author), 113.
2. Jiang, M., Z. Wang, S. Guo, X. Gao, and K.-C. Tan (2020). Individual-based Transfer Learning for Dynamic Multi-objective Optimization. *IEEE Transactions on Cybernetics*.
3. Jiang, M., Z. Wang, H. Hong, and K. C. Tan (2020). Knee Points Based Imbalanced Transfer Learning for Dynamic Multi-objective Optimization. *IEEE Transactions on Evolutionary Computation*.
4. Jiang, M., Z. Wang, L. Qiu, S. Guo, X. Gao, and K. C. Tan (2020). A Fast Dynamic Evolutionary Multiobjective Algorithm via Manifold Transfer Learning. *IEEE Transactions on Cybernetics*.
5. Liu, X., Y. Du, M. Jiang, and X. Zeng (2020). Multiobjective Particle Swarm Optimization Based on Network Embedding for Complex Network Community Detection. *IEEE Transactions on Computational Social Systems* 7(2), 437–449.
6. Song, B., Z. Xiangxiang, and M. Jiang (2020). Monodirectional Tissue P Systems with Promoters  
Submitting Author: *IEEE Transactions on Cybernetics*.
7. Wang, C., G. G. Yen, and M. Jiang (2020). A grey prediction-based evolutionary algorithm for dynamic multiobjective optimization. *Swarm and Evolutionary Computation*, 100695.
8. Zuo, Y., Q. Zou, J. Lin, M. Jiang, and X. Liu (2020). 2lpiRNAPred: a two-layered integrated algorithm for identifying piRNAs and their functions based on LFE-GM feature selection. *RNA biology*, 1–11.
9. Rambabu, R., P. Vadakkepat, K. C. Tan, and M. Jiang (2019). A Mixture-of-Experts Prediction Framework for Evolutionary Dynamic Multiobjective Optimization. *IEEE transactions on cybernetics*.
10. Song, T., P. Zheng, M. D. Wong, M. Jiang, and X. Zeng (2019). On the Computational Power of Asynchronous Axon Membrane Systems. *IEEE Transactions on Emerging Topics in Computational Intelligence*.

11. Jiang, M., L. Qiu, Z. Huang, and G. G. Yen (2018). Dynamic Multi-objective Estimation of Distribution Algorithm based on Domain Adaptation and Nonparametric Estimation. *Information Sciences* 435, 203–223.
12. Cabarle, F. G. C., H. N. Adorna, M. Jiang, and X. Zeng (2017). Spiking Neural P systems with Scheduled Synapses. *IEEE Transactions on NanoBioscience* PP(99), 1–1.
13. JIANG, M., Z. HUANG, L. QIU, W. HUANG, and G. G. YEN (2017). Transfer Learning based Dynamic Multiobjective Optimization Algorithms. *IEEE Transactions on Evolutionary Computation* PP(99), 1–1.
14. Jiang, M., J. Mańdziuk, B. Goertzel, and N. Kubota (Sept. 2017). Guest Editorial Special Issue on Human-Like Intelligence and Robotics. *IEEE Systems Journal* 11(3), 1269–1271.
15. Jiang, M., W. Huang, Z. Huang, and G. G. Yen (2017). Integration of Global and Local Metrics for Domain Adaptation Learning Via Dimensionality Reduction. *IEEE Transactions on Cybernetics* 47(1), 38–51.
16. Huang, Z. and M. Jiang (2016). Trend Prediction Model Based Multi-Objective Estimation of Distribution Algorithm. *Artificial Intelligence and Robotics Research* 5(1). (Correspondence author).
17. Xu, J. and M. Jiang (2016). Particle Swarm Optimization Based Algorithm for Conditional Probability Neural Network Learning. *Artificial Intelligence and Robotics Research* 5(1). (Correspondence author).
18. Wu, Y., M. Jiang, Z. Huang, F. Chao, and C. Zhou (2015). An NP-complete fragment of fibring logic. *Annals of Mathematics and Artificial Intelligence* 75(3-4). (Correspondence author), 391–417.
19. Chao, F., F. Chen, Y. Shen, W. He, Y. Sun, Z. Wang, C. Zhou, and M. Jiang (2014). Robotic Free Writing of Chinese Characters via Human–Robot Interactions. *International Journal of Humanoid Robotics* 11(01). (Correspondence author), 1450007.
20. Chao, F., M. H. Lee, M. Jiang, and C. Zhou (2014). An infant development-inspired approach to robot hand-eye coordination. *International Journal of Advanced Robotic Systems* 11. (Correspondence author).
21. Chao, F., Z. Wang, C. Shang, Q. Meng, M. Jiang, C. Zhou, and Q. Shen (2014). A developmental approach to robotic pointing via human–robot interaction. *Information Sciences* 283, 288–303.
22. Cai, Z., B. Goertzel, C. Zhou, D. Huang, S. Ke, G. Yu, and M. Jiang (2013). OpenPsi: A novel computational affective model and its application in video games. *Engineering Applications of Artificial Intelligence* 26(1), 1–12.
23. Chao, F., X. Zhang, H.-X. Lin, C.-L. Zhou, and M. Jiang (2013). Learning robotic hand-eye coordination through a developmental constraint driven approach. *International Journal of Automation and Computing* 10(5). (Correspondence author), 414–424.
24. Cai, Z., B. Goertzel, C. Zhou, Y. Zhang, M. Jiang, and G. Yu (2012). Dynamics of a computational affective model inspired by dörner’s psi theory. *Cognitive Systems Research* 17, 63–80.
25. Jiang, M., C. Zhou, and S. Chen (2010). Embodied concept formation and reasoning via neural-symbolic integration. *Neurocomputing* 74(1), 113–120.
26. JIANG, M. and G.-q. WU (2007). Reasoning Inconsistency among Viewpoints Using Temporal Epistemic Logic. *Journal of Chinese Computer Systems* 2, 029.

### Papers in conference proceedings (Selected)

1. Liu, X., F. Chao, M. Jiang, C. Zhou, W. Ren, and M. Shi (2018). “Towards Low-Cost P300-Based BCI Using Emotiv EPOC Headset”. In: *Advances in Computational Intelligence Systems: Contributions Presented at the 17th UK Workshop on Computational Intelligence*, September 6-8, 2017, Cardiff, UK. Ed. by F. Chao, S. Schockaert, and Q. Zhang. Cham: Springer International Publishing, pp. 239–244. [https://doi.org/10.1007/978-3-319-66939-7\\_20](https://doi.org/10.1007/978-3-319-66939-7_20).
2. Xu, J., Z. Huang, M. Shi, and M. Jiang (2018). “Emotion Detection in E-learning Using Expectation-Maximization Deep Spatial-Temporal Inference Network”. In: *Advances in Computational Intelligence Systems: Contributions Presented at the 17th UK Workshop on Computational Intelligence*, September 6-8, 2017, Cardiff, UK. Ed. by F. Chao, S. Schockaert, and Q. Zhang. (Cor-

- responsibility author). Cham: Springer International Publishing, pp. 245–252. [https://doi.org/10.1007/978-3-319-66939-7\\_21](https://doi.org/10.1007/978-3-319-66939-7_21).
3. Liu, X.-Q., M. Jiang, F. Chao, C.-L. Zhou, and M.-H. Shi (2017). P300-Based Chinese Speller: A Systematic Summary. In: ITM Web of Conferences. Vol. 12. EDP Sciences, pp.01001.
  4. Cheng, M., G. Wu, M. Jiang, H. Wan, G. You, and M. Yuan (2016). Heterogeneous Defect Prediction via Exploiting Correlation Subspace. In: The 28th International Conference on Software Engineering & Knowledge Engineering. Vol. 2016. Knowledge Systems Institute Graduate School, pp.171–176.
  5. Shi, M., C. Zhou, M. Jiang, Q. Hong, F. Chao, J. Xie, W. Ren, D. Zhou, T. Yang, and X. Liu (2016). Advancement in the EEG-Based Chinese Spelling Systems. In: International Conference on Intelligent Robotics and Applications. Springer, pp.110–117.
  6. Zhu, Z., F. Chao, X. Zhang, M. Jiang, and C. Zhou (2015). A Developmental Approach to Mobile Robotic Reaching. In: Intelligent Robotics and Applications. Springer, pp.284–294.
  7. Chao, F., Y. Sun, Z. Wang, G. Yao, Z. Zhu, C. Zhou, Q. Meng, and M. Jiang (2014). A reduced classifier ensemble approach to human gesture classification for robotic chinese handwriting. In: Fuzzy Systems (FUZZ-IEEE), 2014 IEEE International Conference on. IEEE, pp.1720–1727.
  8. Jiang, M., Y. Ding, B. Goertzel, Z. Huang, C. Zhou, and F. Chao (2014). Improving machine vision via incorporating expectation-maximization into Deep Spatio-Temporal learning. In: Neural Networks (IJCNN), 2014 International Joint Conference on. IEEE, pp.1804–1811.
  9. Yao, G., F. Chao, H. Zeng, M. Shi, M. Jiang, and C. Zhou (2014). Integrate classifier diversity evaluation to feature selection based classifier ensemble reduction. In: Computational Intelligence (UKCI), 2014 14th UK Workshop on. IEEE, pp.1–7 (Best Student Paper Award).
  10. Jiang, M., Y. Yu, F. Chao, M. Shi, and C. Zhou (2013). A connectionist model for 2-dimensional modal logic. In: 2013 IEEE Symposium on Computational Intelligence for Human-like Intelligence (CIHLI). IEEE, pp.54–59.
  11. Wang, Z., F. Chao, H. Lin, M. Jiang, and C. Zhou (2013). A human-like learning approach to developmental robotic reaching. In: Robotics and Biomimetics (ROBIO), 2013 IEEE International Conference on. IEEE, pp.581–586.
  12. Chao, F., H. Lin, M. Jiang, M. Shi, and J. Chao (2012). Integration of brain-like computational structure and infant behavioral pattern for robotic hand-eye coordination. In: Control Automation Robotics & Vision (ICARCV), 2012 12th International Conference on. IEEE, pp.100–105.
  13. Chao, F., H. Lin, M. Jiang, and C. Zhou (2012). A developmental constraint driven approach to developmental robotic hand-eye coordination. In: Robotics and Biomimetics (ROBIO), 2012 IEEE International Conference on. IEEE, pp.1848–1853.
  14. Hu, L., F. Chao, M. Jiang, M. Shi, and P. Wang (2012). A Developmental Approach to Robotic 3D Hand-Eye Coordination. In: Advances in Electrical Engineering and Automation. Springer Berlin Heidelberg, pp.361–367.
  15. Jiang, M., Y. Yu, X. Liu, F. Zhang, and Q. Hong (2012). Fuzzy neural network based dynamic path planning. In: Machine Learning and Cybernetics (ICMLC), 2012 International Conference on. Vol. 1. IEEE, pp.326–330.
  16. Li, H., C.-l. Zhou, M. Jiang, and K. Cai (2012). A hybrid approach for Chinese word similarity computing based on HowNet. In: Automatic Control and Artificial Intelligence (ACAI 2012), International Conference on. IET, pp.80–83.
  17. Shi, M., C. Zhou, F. Chao, and M. Jiang (2012). An algorithm for computing attribute reducts based on graph search strategy. In: Neural Networks (IJCNN), The 2012 International Joint Conference on. IEEE, pp.1–8.
  18. Zhang, X., M. Jiang, C. Zhou, and Y. Hao (2012). Graded BDI models for agent architectures based on Łukasiewicz logic and propositional dynamic logic. In: Web Information Systems and Mining. Springer Berlin Heidelberg, pp.439–450.

19. Chao, F., L. Hu, M. Shi, and M. Jiang (2011). Robotic 3D reaching through a development-driven double neural network architecture. In: *Knowledge Engineering and Management*. Springer Berlin Heidelberg, pp.179–184.
20. Goertzel, B., H. De Garis, C. Pennachin, N. Geisweiller, S. Araujo, J. Pitt, S. Chen, R. Lian, M. Jiang, Y. Yang, et al. (2010). OpenCogBot: Achieving generally intelligent virtual agent control and humanoid robotics via cognitive synergy. In: vol. 10.
21. Jiang, M., J. Xu, and F. Liu (2010). Uncertain Formal Concept Based on 3-Valued Lukasiewicz Logic. In: *Computational Intelligence and Software Engineering (CiSE), 2010 International Conference on*. IEEE, pp.1–4.
22. GARIS, H. de, D. P. D. Z. Changle, X. Shi, B. Goertzel, W. Pan, K. Miao, J. Zhou, M. Jiang, L. Zhen, Q. Wu, et al. (2009). The China-Brain Project: Report on the First Six Months. In:
23. Jiang, M., C. Zhou, G. Wu, and F. Zhang (2008). A CSP-Based Approach for Solving Parity Game. In: *Frontiers in Algorithmics*. Springer Berlin Heidelberg, pp.135–146.
24. Jiang, M., C. Zhou, F. Zhang, and S. Chen (2008). Interpretation, Transformation and Model Checking of Semi-Formal Diagram Notations. In: *Computer Science and Software Engineering, 2008 International Conference on*. Vol. 2. IEEE, pp.263–266.
25. Zhang, F., G. Wu, M. Jiang, and X. Liu (2008). Concerning about Trust of Platform Hardware. In: *Computational Intelligence and Industrial Application, 2008. PACIIA'08. Pacific-Asia Workshop on*. Vol. 2. IEEE, pp.852–856.
26. Jiang, M. (2007). Finding pure Nash equilibrium of graphical game via constraints satisfaction approach. In: *Combinatorics, Algorithms, Probabilistic and Experimental Methodologies*. Springer Berlin Heidelberg, pp.483–494.