CURRICULUM VITAE

Contact Information

Name: Xiaoming Wang 王曉明

Phone： +853 65348393 (Macau)

                 +86 13417911716 (Zhuhai)

WeChat: xiaoming622519

Address: Room W34-1011, Lui Che Woo College,

                 University of Macau, Taipa, Macau.

Email: xiaoming.wang@connect.um.edu.mo

Education

- 08/2018- present   PhD candidate, Computer Science, University of Macau (UM), Macau.

     (*Supervisor: Prof. Zhiguo Gong, Prof. Xiaoshan Li*)

- 08/2014-07/2018   M.S. degree, Electromechanical Engineering, University of Macau. Macau.

     (*Supervisor: Prof. Yangmin Li, Prof. Zhixin Yang*)

- 09/2009-07/2013   B.S. degree, **Innovation Experimental Class**, Mechanical and Automation

     Engineering, Shandong University of Technology, Shandong, China.

     (*Supervisor: Prof. Yanfei Zhang, Prof. Jinliang Gong*)

Language

- English (*TOEFL, GRE, CET6*)   Chinese (*Mandarin, Cantonese*)

Research Interests

- Generative AI; Machine learning; Calligraphy Robot; Mobile Robot; Image Processing.

Research Experiences

- 2021-present   **State Key Laboratory of Internet of Things for Smart City,** University of Macau.

     Researching on generative AI, robotic machine learning.

- 2018-2021   **Software Engineering Lab,** University of Macau.

     Researching on Calligraphy robot, intelligent control, GUI design.

- 2014-2018   **Mechatronics Lab,** University of Macau.

     Researching on mobile robot design, motion analysis, and intelligent control

     with software of SolidWorks, Protel DXP, LabVIEW and MATLAB, etc.

- 2009-2013   **Parallel Robot Innovation Lab,** Shandong University of Technology.

     Researching on mechanical design, Printed Circuit Board (PCB) design, 3D model

     rendering, single-chip microcomputer design with software SolidWorks, AutoCAD,

     Protel DXP, LabVIEW, etc.

Teaching Experiences

- 2019.01-2021.05 **Teaching Assistant (in English),** Faculty of Science and Technology, UM
    * English Language Centre - Teaching assistant certificate
    * Object-Oriented Analysis and Design Patterns (2018/2019)
    * Principles and Applications of Concurrent Programming (2018/2019)
    * Information Technology Fundamentals and Practices (2020/2021)
- 2019.08-present **Resident Tutor,** Lui Che Woo College, University of Macau.
- 2016.11-2017.12 **House Tutor,** Postgraduate House, University of Macau.

Publications

* **Xiaoming Wang**, Yilong Yang, Zhiguo Gong, etc. Generative adversarial networks based motion learning towards robotic calligraphy synthesis. CAAI Transactions on Intelligence Technology, 2023. (**JCR Q1/7.9**)

* **Xiaoming Wang**, Zhiguo Gong. Style Generation in Robot Calligraphy with Deep Generative Adversarial Networks. Applied Intelligence Journal, 2024. (**JCR Q2/ IF 5.3**)

* **Xiaoming Wang**, Peng Liu, Ruidong Xi, Zhiguo Gong. Calligraphy Generation With Deep Generative Adversarial Networks. IEEE Signal Processing Letters, preprint.

* **Xiaoming Wang**, Qingtian Wu, Ruidong Xi, Zhiguo Gong. MegKG: Meta-graph Guided Knowledge Graph Learning for Robot Motion Prediction. The 33rd International Joint Conference on Artificial Intelligence, IJCAI 2024, preprint. (**CCF A**)

* **Xiaoming Wang**, Peng Liu, Ruidong Xi, Zhiguo Gong. FineCS: Enhancing Style Transfer for Calligraphy Synthesis With Deep Adversarial Learning. IEEE Transactions on Circuits and Systems for Video Technology, preprint. (**JCR Q1/8.4**)

* Qingtian Wu, **Xiaoming Wang**, Liming Zhang, etc. YOLOLandmark: an End-to-End Deep Network for Real-time Face and Its Dense Facial Landmark Detection. IEEE Transactions on Industrial Informatics, preprint. (**JCR Q1/12.3**)

* Qingtian Wu, **Xiaoming Wang**, Lei Dai, Fei Richard Yu and Liming Zhang. A Real-Time Multi-Task Learning System for Joint Detection of Face, Facial Landmark and Head Pose. IEEE Internet of Things Journal, preprint. (**JCR Q1/10.6**)

* Ruidong Xi, Xue Zhang, Tienan Ma, **Xiaoming Wang**, Xiao Xiao, Max Q.-H. Meng. Disturbance Observer based Terminal Sliding Mode Control for an Electromagnetic Actuated Micropositioner with Prescribed Performance. IEEE Transactions on Automation Science and Engineering, preprint. (**JCR Q2/5.6**)

* Xiao Xiao, Yangmin Li and **Xiaoming Wang**. Configuration Analysis and Design of a Multidimensional Tele-operator Based on a 3-P(4S) Parallel Mechanism. Springer Journal of Intelligent & Robotic Systems, 2018. (**JCR Q3/3.3**)

* Jinliang Gong, **Xiaoming Wang**, Fengan Huang, Yanfei Zhang. Dynamic performances analysis of hybrid press based on dependent generalized coordinates. Journal of Mechanical Engineering Science, 2015. (**JCR Q3/2.07**)

Patents/Monograph

* 《Data for intelligent operation and maintenance of bridge-island-tunnel crossings— Common structural element information》 (T/GBAS 68-2023)，Guangdong-Hong Kong-Macao Greater Bay Area Standards Promotion Council of Guangdong Province, 2023. (Co-author)

* 《A method for bridge disease knowledge graph modeling and graph neural network prediction》. Patent. Under approving.

* 《A robot calligraphy creation and optimization method based on generative adversarial network》. Patent. Under approving.

Projects/Fundings

* 2019.12-2023.11, Integrated application of intelligent operation and maintenance technology for the Hong Kong-Zhuhai-Macao Bridge. **National Key Research & Development Program of China**. (Grant no: 2019YFB1600704, RMB 1830800, Main contributor)

* 2017-2019, Model-Driven Software Development from Requirement Description to Code Generation. Science and Technology Development Fund. (Grant no: MYRG 2017-00141-FST, Main contributor)

Academic activities

* 2021-present, IEEE Robotics and Automation Society, *Membership*.

* 2021-present, IEEE Young Professionals Program, *Membership*.

* Served as an *Editorial Board Member* of International Journal of Intelligent Information Systems (IJIIS, 4/3/2024-4/3/2027).

* Served as a *reviewer* of IEEE Transactions on Circuits and Systems for Video Technology, IEEE/ASME Transactions on Mechatronics, CAAI Transactions on Intelligence Technology, Frontiers in Neuroscience (IF4.3), etc.

* Served as a *volunteer* for IJCAI 2023, The 5th International Conference on Nano Manufacturing (nanoMan 2016, Macau), etc.

* To be serving as a *session co-chair* of International Conference on Computer Technology and Information Science (CTIS 2024, June 2024).

Internship

* 2023.05-23.11, Research Assistant, Zhuhai UM Science & Technology Research Institute.

Honors/Awards

* 2018-present, PhD Research Assistant scholarship, University of Macau.

* 2019-2021, PhD Teaching Assistant scholarship, University of Macau.

* 2015-2018, Master Research Assistant scholarship, University of Macau.

* 2011-2014, School scholarship, Shandong University of Technology.

* 2012, Specialized scholarship of Scientific and Technological, SDUT.

* 2012, Second prize of the Twelfth Session "The Challenge Cup" Shandong University Student Extracurricular Academic Science and Technology Work Competition.

* 2011, Excellent/Second prize of National 3D Innovation Design Competition.

* Provincial Second Prize in Mathematics Olympiad.

* Calligraphy Competition Awards: First Prize in Shandong University of Technology Calligraphy Competition; Outstanding Prize (2018), Third Prize (2019), Third Prize (2019) of Brush Calligraphy Competition in University of Macau; First Prize of Handwritten Miniature Poetry Competition (2019) in University of Macau.

Certificates

* Web of Science Academy Certificates: Good Citation Behavior; Introduction to Peer Review; Introduction to Ethical Publishing Behavior; Reviewing in the Sciences.

* Mental Health First Aid (MHFA) Standard Course Certificate. The Mental Health Association of Hong Kong. (2023.03)

* College team of table tennis. Captain/Instructor. Lui Che Woo College. (2019-2023)

* University team of table tennis, University of Macau. (2015-2018)

* Calligraphy Club, President/Advisor. University of Macau. (2015-2018)

* Chinese Mandarin Test, secondary-level A. (2012.10)

More info

Personal page: https://xiaoming622.github.io
Github: https://github.com/xiaoming622
ORCID: https://orcid.org/0000-0001-5118-4581
ResearchGate: https://www.researchgate.net/profile/Xiaoming-Wang-58
GoogleScholar: https://scholar.google.com/citations?user=nsF7SpoAAAAJ&hl=en
Robot calligraphy project: https://www.youtube.com/@xiaomingwang4341/shorts