

Tao Wang

Tel: (+86) 150-9330-2113

E-mail: taowang2021@tju.edu.cn

Homepage: <https://taowang-academic.me/>

Address: Weijin Road Campus: No. 92, Weijin Road,
Nankai District, Tianjin, China, 300072



Education

Tianjin University – China

Intelligent Medical Engineering (PhD student)

2021.09 - at present

Lanzhou University – China

Electronics and Communication Engineering (Master)

2018.09 - 2021.07

Zhengzhou University – China

Electronics and Communication Engineering
(Bachelor)

2014.09 - 2018.07

Research Interest Areas

- **Substantive:** Human-Computer Interaction, Human Movement Analysis, Brain-Computer Interface
- **Methodological:** Machine Learning, Deep Learning, Riemannian Manifold, Computer Vision
- **Industry:** Artificial Intelligence, Healthcare, Rehabilitation

Publications

1. **T. Wang**, S. Liu*, F. He, W. Dai, M. Du, Y. Ke, and D. Ming*, Emotion Recognition From Full-body Motions Using Multiscale Spatio-Temporal Network [J]. IEEE Transactions on Affective Computing, Early Access, 2023. (JCR Q1, impact factor = 11.20)
2. M. Du, S. Liu*, **T. Wang**, W. Zhang, Y. Ke, L. Chen, and D. Ming*, Depression Recognition Using A Proposed Speech Chain Model Fusing Speech Production And Perception Features [J]. Journal of Affective Disorders, 2023, 323: 299-308. (JCR Q1, impact factor =6.533)
3. M. Du, W. Zhang, **T. Wang**, S. Liu*, D. Ming*, An Automatic Depression Recognition Method from Spontaneous Pronunciation Using Machine Learning[C]. Proceedings of the 9th International Conference on Biomedical and Bioinformatics Engineering (ICBBE), Vienna, Austria, 2022, pp.133-139.
4. **T. Wang**, C. Li, C. Wu, C. Zhao, J. Sun, H. Peng*, X. Hu* and B. Hu*, A Gait Assessment Framework for Depression Detection Using Kinect Sensors [J]. IEEE Sensors Journal, 2021, 21(3): 3260-3270. (JCR Q1, impact factor =4.325)
5. **T. Wang**, J. Sun, J. Chao, S. Zheng, C. Zhao, C. Wu, H. Peng*, A Novel Gait Analysis Method Based on The Pseudo-velocity Model for Depression Detection [C]. 2020 IEEE International Conference on E-health Networking, Application & Services (HEALTHCOM), Shenzhen, China, 2021, pp. 1-6.
6. C. Zhao, C. Li, J. Chao, **T. Wang**, C. Lei, J. Liu, H. Peng*, F-score Based EEG Channel Selection Methods for Emotion Recognition[C]. IEEE International Conference on E-health Networking, Application & Services (HEALTHCOM), Shenzhen, China, 2021, pp. 1-6.

7. H. Peng, C. Li, J. Chao, **T. Wang**, C. Zhao, X. Huo and B. Hu*, A Novel Automatic Classification Detection for Epileptic Seizure based on Dictionary Learning and Sparse Representation [J]. *Neurocomputing*, 2021, 424: 179-192. (JCR Q1. impact factor =5.779)
8. C. Wu, J. Sun, **T. Wang**, C. Zhao, S. Zheng, C. Lei, H. Peng*, An Application of Affective Computing on Mental Disorders: A Resting State fNIRS Study [J]. *IFAC-PapersOnLine*, 2020, 53(5): 464-469.
9. S. Zheng, C. Lei, **T. Wang**, C. Wu, J. Sun, H. Peng*, Feature-level Fusion for Depression Recognition Based on different fNIRS Data [C]. 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Seoul, Korea (South), 2020, pp. 2906-2913.
10. J. Fang, **T. Wang**, C. Li, X. Hu*, E. Ngai, B. Seet, J. Chen, Y. Guo and X. Jiang*, Depression prevalence in postgraduate student and its association with gait abnormality [J]. *IEEE Access*, 2019, 7: 174425–174437. (JCR Q2. impact factor =3.476)

Under Review

1. T. Wang, S. Liu*, F. He, W. Dai, M. Du, Y. Ke, and D. Ming*, Emotional Body Gesture Recognition Framework Based on Spatio-Temporal Features [J]. *Information Sciences*. (JCR Q1, impact factor =8.233, under the third review)
2. T. Wang, S. Liu*, F. He, M. Du, Y. Ke, and D. Ming*, Affective Body Expression Recognition Framework Based on Spatio-Temporal Features [J]. *IEEE Transactions on Computational Social Systems*. (JCR Q1, impact factor =5.0, under the first review)

Working Papers

1. Recognition of Depression Based on Brain Network Fusion Images with S. Liu and D. Ming. (Prepare for submission)
2. Emotion Recognition from Body Movements Via Stein Kernel-Based Sparse Representation with D. Ming. (Prepare for submission)
3. Moter-Imagery Classification for Brain-Computer Interface with S. Liu and D. Ming.

Patents

1. Application for China invention patent, “Emotion Recognition Method and Device Based On Non-Linear Spatial Features of Human Posture Movements”, Patent Number:CN202210298674.9
2. Application for China invention patent, “A Method and Device for Automatic Emotion Recognition Based on A Pseudo-Energy Model of Gesture Movements”, Patent Number:CN202210282815.8
3. Application for utility model patent "A geophysical information acquisition system based on Internet plus", Patent Number: ZL201621425537.3

Honors and Award

2023.07	National Scholarship for Study Abroad (National Level) China Scholarship Council (CSC)
2022.10	Merit Student in Tianjin University (University Level) Tianjin University
2020.10	National Graduate Scholarship (National level) Ministry of Education of the People’s Republic of China

- 2019.10 **First Prize Scholarship for Postgraduate (University level)**
Lanzhou University
- 2017.12 **Second Prize in the 13th China undergraduate Electronic Design Contest (National level)**
Chinese Institute of Electronics
- 2017.07 **Excellent Student Leader (Provincial level)**
The Education Department of Henan Province
- 2014.12-2016.12 **Merit Student in Zhengzhou University (University level, Two times)**
Zhengzhou University
- 2015.11 **National Encouragement Scholarship (National level)**
Ministry of Education of the People's Republic of China