

Dr. Tianyi Zhang

Associate Professor

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Research Interests

- Psychological-signal-based Affective Computing
- LLM-based Personality Assessment
- Emotion Recognition for Social Media

Academic Experience

2024.05 - now **Associate Professor**, Affective Information Processing Lab, Southeast University, China

2023.02-2024.05 **Postdoc Researcher**, Department of Experimental and Applied Psychology, Vrije Universiteit Amsterdam, Netherlands

Research project: Automatic personality assessment based on video interviews
Supervisor: Reinout de Vries

2022.07-2023.02 **Guest Researcher, Centrum Wiskunde en Informatica (CWI), Netherlands**

Research topic: Group Synchrony for Emotion Recognition using Physiological Signals

2018.08-2022.10 **Ph.D. Candidate, Multimedia Computing Group, TU Delft**

Thesis: On Fine-grained Temporal Emotion Recognition in Video: How to Trade off Recognition Accuracy with Annotation Complexity?

Supervisor: Alan Hanjalic, Pablo Cesar

2022.07-2022.07 **Researcher in Training, Centrum Wiskunde en Informatica (CWI)**

Research topic: Physiological Signal based User Experience Evaluation

Supervisor: Pablo Cesar, Abdallah El Ali

Projects

1. National Natural Science Foundation of China (PI), ¥ 300,000
2. National Special Project for Talented Postdoctoral Researchers (PI), ¥ 12,000,000
3. Science Foundation of Jiangsu Province (PI), ¥ 200,000
4. Humanities and Social Sciences Project of the Ministry of Education of China (PI), ¥ 80,000
5. Fundamental Research Funds for the Central Universities of China (PI), ¥ 120,000
6. Joint Open Project of Southeast University-Jiangsu Province Hospital (PI), ¥ 100,000

First Author Publications

1. **Tianyi Zhang**, Tianhua Qi, Antonis Koutsoumpis, Yuan Zong, Wenming Zheng, Janneke K. Oostrom, Djurre Holtrop, Zhaojie Luo, and Reinout E. de Vries. 2025. Assessing Personality Traits and Interview Performance from Asynchronous Video Interviews. In *Proceedings of the 33rd ACM International Conference on Multimedia (MM '25)*, October 27–31, 2025, Dublin, Ireland. ACM, New York, NY, USA
2. **Zhang T**, Antonis K , Janneke K. O , Djurre.H, Sina.H, Reinout E. de Vriesa. Can Large Language Models Assess Personality from Asynchronous Video Interviews? A Comprehensive Evaluation of Validity, Reliability, Fairness, and Rating Patterns, *IEEE Transaction on Affective Computing 2024*
3. **Zhang T**, El Ali A, Wang C, Hanjalic A, Cesar P., Weakly-supervised Learning for Fine-grained Emotion Recognition using Physiological Signals, *IEEE Transaction on Affective Computing 2022*.
4. **Zhang T**, El Ali A, Wang C, Hanjalic A, Cesar P. Few-shot Learning for Fine-grained Emotion Recognition using Physiological Signals, *IEEE Transaction on Multimedia 2022*.
5. **Zhang T**, El Ali A, Wang C, Hanjalic A, Cesar P. RCEA: Real-time, Continuous Emotion Annotation for Collecting Precise Mobile Video Ground Truth Labels. In *Proceedings of the CHI Conference on Human Factors in Computing Systems 2020* Apr 21 (pp. 1-15).
6. S Ghassemi*, **Zhang T***, W Breda, A Koutsoumpis, J Oostrom, D Holtrop, R. E. de Vries, Unsupervised Multimodal Learning for Dependency-Free Personality Recognition, *IEEE Transaction on Affective Computing 2023*. (*equal contribution)
7. **Zhang T**, El Ali A, Wang C, Hanjalic A, Cesar P. Corrnet: Fine-grained emotion recognition for video watching using wearable physiological sensors. *Sensors*. **2021** Jan;21(1):52.
8. **Zhang T**, El Ali A, Wang C, Zhu X, Cesar P. CorrFeat: Correlation-based Feature Extraction Algorithm using Skin Conductance and Pupil Diameter for Emotion Recognition. In *Proceedings of the International Conference on Multimodal Interaction (ICMI) 2019* Oct 14 (pp. 404-408).
9. **Zhang T**. Multi-modal Fusion Methods for Robust Emotion Recognition using Body-worn Physiological Sensors in Mobile Environments. In *Proceedings of the International Conference on Multimodal Interaction (ICMI) 2019* Oct 14 (pp. 463-467).
10. **Zhang T**, Le Meur BO. How old do you look? Inferring Your Age from your Gaze. In *2018 25th IEEE International Conference on Image Processing (ICIP) 2018* Oct 7 (pp. 2660-2664).
11. **Zhang T**, Dongsheng Hu, Xiu-xiu Zhan, Yuan Zong, Yong Li, Chuang Liu, and Wenming Zheng, PersonalityLLM: Fine-tuning Large Language Models for Personality Assessment from Asynchronous Video Interviews, *IEEE Transaction on Affective Computing 2025 (under review)*
12. **Zhang T**, Wenming Zheng, Antonis Koutsoumpis, Janneke K. Oostrom, and Reinout E. de Vries, Mixture-of-Agent Large Language Models for text-based Personality Assessment from Asynchronous Video Interviews, *IEEE Transaction on Affective Computing 2025 (in revision)*

Collaborative Publications

1. Xue T, El Ali A, **Zhang T**, Ding G, Cesar P. RCEA-360VR: Real-time, Continuous Emotion Annotation in 360 VR Videos for Collecting Precise Viewport-dependent Ground Truth Labels. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems 2021* May 6 (pp. 1-15).
2. Furdui A, **Zhang T**, Worring M, Cesar P, El Ali A. AC-WGAN-GP: Augmenting ECG and GSR Signals using Conditional Generative Models for Arousal Classification. In *Proceedings of the UbiComp 2021* Sep

21 (pp. 21-22).

3. P Bota, **Zhang T**, A El Ali, A Fred, HP da Silva, P Cesar, Group Synchrony for Emotion Recognition using Physiological Signals, *IEEE Transaction on Affective Computing* **2023**.
4. Xue T, El Ali A, **Zhang T**, Ding G, Cesar P. CEAP-360VR: A Continuous Physiological and Behavioral Emotion Annotation Dataset for 360 VR Videos. *IEEE Transactions on Multimedia*. **2021** Nov 13.
5. Chen, H., Jiang, B., **Zhang, T.**, and Lu, N. Data-driven and Deep Learning-based Detection and Diagnosis of Incipient Faults with Application to Electrical Traction Systems. *Neurocomputing*, **2020**, 396, 429-437.
6. Xie, J, Chen, X, **Zhang,T**, Zhang, Y, Lu, S,Cesar,P, and Yang, Y; Multimodal-based and Aesthetic-guided Narrative Video Summarization, *IEEE Transaction on Multimedia* **2022**.
7. Zheng Li, Yuan Zong, Cheng Lu, **Zhang,T**, Jingang Shi, Xin Liu, and Wenming Zheng, Senior Member, IEEE Advancing Micro-Expression Recognition: A Task-Specific Framework Integrating Frequency Analysis and Structural Embedding, *IEEE Transaction on Affective Computing* **2025 (under review)**
8. Yong Li, Yi Ren, Yizhe Zhang, Wenhua Zhang, **Zhang,T**, Muyun Jiang, Guo-Sen Xie, and Cuntai Guan ,Hierarchical Vision-Language Interaction for Facial Action Unit Detection, *IEEE Transaction on Affective Computing* **2025 (in revision)**

Thesis Supervision

- [1]. Andrei Furdui, Intelligent Data Augmentation for Physiological Signals using Conditional Generative Attention Models, 2020 (University of Amsterdam)
- [2]. Mihir Kapadia, Few-Shot Emotion Recognition using Intelligent Voice Assistants and Wearables, 2021 (Delft University of Technology)

Academic Services

- **Main Organizer** of the *ACM Multimedia AVI Challenge 2025: Assessing Personality Traits and Interview Performance from Asynchronous Video Interviews*, Dublin, Ireland
- **Associate Editor** of *IEEE Transactions on Affective Computing (IEEE TAFFC)*
- **Reviewer in the following journals:** *IEEE Transactions on Affective Computing (IEEE TAFFC)*, *IEEE Transactions on Multimedia (IEEE TMM)*, *IEEE Internet of Things Journal (IEEE IoT)*, *ACM Transactions on Multimedia Computing, Communications, and Applications (ACM TOMM)*, *Personality and Individual Differences (PID)*
- **Program Committee Member:** ACM International Conference on Multimodal Interaction (ICMI) 2023, 2024