Tianyi Zhang

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Experience

2023.02- now	**Postdoc Researcher, Vrije Universiteit Amsterdam** Research project: Automatic personality assessment based on video interviews
2022.07-2023.02	**Guest Researcher, Centrum Wiskunde en Informatica (CWI)** Research topic: Group Synchrony for Emotion Recognition using Physiological Signals
2018.07-2022.07	**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?
2015.09-2018.04	**M.S., Control Engineering, NUAA** Thesis: Obstacle avoidance for mobile robot based on stereo vision
2011.09-2015.06	**B.S., Electrical Engineering and Automation, NUAA** Thesis: Research on autonomous takeoff and landing based on computer vision for a multi-rotor aircraft
2013.08-2014.01	**Exchange Student**, Lassonde School of Engineering, York University, Canada

Project

2018.07-2022.07 Industrial Ph.D. funded by **Xinhuanet, Centrum Wiskunde & Informatica**
Topic: Evaluate the emotional response of users for media content

Internships

2018.06-2018.07 **Research Assistant**, Xinhuanet, Beijing, China
Project: Quantifying audience experience using physiological signals

2017.07-2017.09 **Research Assistant**, AE2, KOSTAL Asia R&D Center, Shanghai, China
Project: Driver Monitor Camera System for fatigue driving identification

First-author and corresponding-author publications

1. S Ghassemi*, **T Zhang***, W Breda, Antonis 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 first author and corresponding author)
2. P Bota, **T Zhang**, A El Ali, A Fred, HP da Silva, P Cesar, Group Synchrony for Emotion Recognition using Physiological Signals, *IEEE Transaction on Affective Computing* ***2023***. **(Corresponding author)**
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. **Zhang T**, El Ali A, Wang C, Hanjalic A, Cesar P. Cornet: Fine-grained emotion recognition for video watching using wearable physiological sensors. *Sensors*. **2021** Jan;21(1):52.
7. **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.
8. **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).
9. **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.
10. **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* .(under review)

Co-authored 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 .
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. 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.
4. Chen, H., Jiang, B., **Zhang, T**., and Lu, N. Data-driven and Deep Learning-based Detection and Dagnosis of Incipient Faults with Application to Electrical Traction Systems. *Neurocomputing*, **2020**, 396, 429-437.
5. 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***.

Citations: 279, h-index: 9, i10-index: 9
Full publication list at: *https://scholar.google.com/citations?&user=k-ogUq0AAAAJ*

Master's thesis co-supervision

1. Mihir Kapadia, *Few-Shot Emotion Recognition using intelligent voice assistants and wearables*, TU Delft, the Netherlands, 2022
2. Andrei Furdui, *Intelligent Data Augmentation for Physiological Signals using Conditional Generative Attention Models*, University of Amsterdam, the Netherlands, 2020