Leimin Tian

Research Fellow
Computer Human Interaction and Creativity (CHIC)
Faculty of Information Technology
Monash University

H7.44, Building H, Caulfield East
VIC 3145, Australia
Phone: (+61) 03 990 32939
Email: Leimin.Tian@monash.edu

Research Interests

Affective Computing, Human-Robot Interaction, Social Robotics, Human-Centered Artificial Intelligence, Multimodal Behavior Analytics, Dialogue Systems

Teaching Interests

Affective Computing, Human-Robot Interaction, Social Robotics, Human-Centered Artificial Intelligence

Education

- Ph.D. in Informatics. The University of Edinburgh. 2013–2018.

    - *Thesis:* "Recognizing Emotions in Dialogues with Acoustic and Lexical Features"
    - *Supervisors:* Prof. Johanna D. Moore and Dr. Catherine Lai

- M.Sc. in Artificial Intelligence (*with Distinction*). The University of Edinburgh. 2012–2013.

    - *Dissertation:* "Emotion Recognition using Feature-Level Fused Audio-Visual Data"
    - *Supervisors:* Prof. Johanna D. Moore and Dr. Catherine Lai

- B.Eng. in Artificial Intelligence. Beijing University of Posts and Telecommunications. 2008–2012.

    - *Dissertation:* "An Application of Audio-Visual Emotion Recognition"
    - *Supervisors:* Prof. Xiaojie Wang and Dr. Yongbin Liu

Grants and Awards

- Jan. 2020–Dec. 2020: Monash University Interdisciplinary Research Support Scheme Seed Funding (AUD $49,923). "Understanding robots in public space: interdisciplinary insights for public policy".

- Sep. 2019–Aug. 2020: Monash University FIT Early Career Researcher Seed Grant (AUD $13,000). "Developing a robot teleoperation framework for simulation studies".

- AAAC (Association for the Advancement of Affective Computing) researcher of the day: five times in 2019, four times in 2018.

- Student travel grant from ACII2015 and ACII2017 conference organizing committees.

- The Fiorella De Rosis Award for the best Doctoral Consortium paper at ACII2015 conference.

Publications

1. **Leimin Tian**, Sharon Oviatt, Michal Muszynski, Brent Chamberlain, Jennifer Healey, and Akane Sano. Applied Affective Computing. *ACM Books*. 2020. *Book proposal accepted*.

2. **Leimin Tian** and Sharon Oviatt. A Taxonomy of Social Errors in Human-Robot Interaction. *ACM Transactions on Human-Robot Interaction*. 2020. *Accepted, under revision*.

3. Muszynski Michal, **Leimin Tian**, Catherine Lai, Johanna Moore, Theodoros Kostoulas, Patrizia Lombardo, Thierry Pun, and Guillaume Chanel. Recognizing Induced Emotions of Movie Audiences From Multimodal Information *IEEE Transactions on Affective Computing*. 2019.

4. Catherine Lai, Beatrice Alex, Johanna Moore, **Leimin Tian**, Tatsuro Hori, and Gianpiero Francesca. Detecting Topic-Oriented Speaker Stance in Conversational Speech *InterSpeech*. 2019.

5. **Leimin Tian**, Johanna D. Moore, Catherine Lai. Polarity and Intensity: the Two Aspects of Sentiment Analysis *2018 ACL Grand Challenge and Workshop on Human Multimodal Language (Challenge-HML)*. 2018.

6. Jennifer Williams, Ramona Comanescu, Oana Radu, and **Leimin Tian**. DNN Multimodal Fusion Techniques for Predicting Video Sentiment *2018 ACL Grand Challenge and Workshop on Human Multimodal Language (Challenge-HML)*. 2018.

7. **Leimin Tian**, Michal Muszynski, Catherine Lai, Johanna D. Moore, Theodoros Kostoulas, Patrizia Lombardo, Thierry Pun, Guillaume Chanel. Recognizing Induced Emotions of Movie Audiences: Are Induced and Perceived Emotions the Same? *2017 International Conference on Affective Computing and Intelligent Interaction (ACII)*. 2017 **(Best Paper Nominee)**.

8. **Leimin Tian**, Johanna D. Moore, Catherine Lai. Recognizing Emotions in Spoken Dialogue with Hierarchically Fused Acoustic and Lexical Features. *Spoken Language Technology Workshop (SLT) 2016*. 13–16 Dec., 2016.

9. **Leimin Tian**, Johanna D. Moore, Catherine Lai. Emotion Recognition in Spontaneous and Acted Dialogues. *2015 International Conference on Affective Computing and Intelligent Interaction (ACII)*. pp. 698-704. 21–24 Sep., 2015.

10. **Leimin Tian**, Johanna D. Moore, Catherine Lai. Recognizing Emotions in Dialogues with Acoustic and Lexical Features. *2015 International Conference on Affective Computing and Intelligent Interaction (ACII)*. pp. 737-742. 21–24 Sep., 2015 **(Best Doctoral Consortium Paper)**.

11. **Leimin Tian**, Johanna D. Moore, Catherine Lai. Recognizing Emotions in Dialogues with Disfluencies and Non-Verbal Vocalisations. *Proceedings of the 4th Interdisciplinary Workshop on Laughter and Other Non-verbal Vocalisations in Speech*, pp. 39-41. 14–15 Apr., 2015.

12. Johanna D. Moore, **Leimin Tian**, Catherine Lai. Word-Level Emotion Recognition Using High-Level Features. *CICLing 2014*, Part II, LNCS 8404, pp. 17-31. 2014.

Teaching Experiences

- *Guest lecture at FIT3175 Usability:* "Usability: from HCI to HRI", 6th May 2019.

- *Guest lecture at FIT6021 Advanced IT Research Method:* "HCI Research Methods: Crowdsourcing", 1st Oct. 2018.

- *Co-supervisor of PhD candidate Chathurika Palliya Guruge:* Monash University. Feb. 2019–Present.

- *Primary supervisor of Master's Minor thesis and Honor's projects:* Monash University. Mar. 2019–Present.

  - Shujie Zhou. "Exploring the Role of Emotions in Human-Multi-Agent Collaboration"
  - Duc Huy Tran. "Modelling Human-Human Emotion Dynamics in Spoken Dialogue" (Honor's)

- *Co-supervisor of MSc dissertations:* The University of Edinburgh.

  - Stanley Wang. "Representation Learning for Emotion Recognition". Jun. 2017–Aug. 2017.
  - Chenyu Wang. "Automatic Detection of Non-Verbal Vocalisations in Spoken Dialogues". Jun. 2016–Aug. 2016.
  - Xinran Shi. "Automatic Detection of Disfluencies in Spoken Dialogues". Jun. 2016–Aug. 2016.

Research and Work Experiences

- *Post-doc.* Edinburgh University. Apr. 2017–Jun. 2017.

  - *Toyota Dialog Stance Project:* Implemented an emotion recognition model for conversational speech as part of a prototype speech-based interface.

- *Consultant.* EmoTech Ltd. 19th Sep. 2016–19th Dec. 2016.

  - *AI of Emotion Project:* Designed and developed the emotion recognition, interaction, and synthesis modules of Olly, a domestic personal assistant robot.

Technical Skills

- *Programming languages:* Python (primary), Matlab, Perl

- *Machine Learning:* Keras, Scikit-Learn, R, WEKA

- *Signal processing and annotation:* OpenSMILE, Praat, ELAN, Amazon Mechanical Turk

- *Other:* Linux, SSH, LaTeX

Service

- *Committee Member.* Monash University Early Career Academics Committee. Feb. 2019–Present.

- *Junior Executive Committee Member.* Association for the Advancement of Affective Computing (AAAC). Feb. 2018–Present.

- *Member.* Social Robotics Network. Feb. 2019–Present.

- *Committee Member.* British Science Association (Edinburgh Branch). Sep. 2012–Jun. 2018.

- *Regular Reviewer.* IEEE Transactions on Affective Computing; International Conference on Affective Computing and Intelligent Interaction. 2017–Present.

- *Publicity Chair.* 22nd ACM International Conference on Multimodal Interaction. 11th–15th Oct. 2020.

- *Social Media Chair.* 2019 International Conference on Affective Computing and Intelligent Interaction. 3rd–6th Sep. 2019.

Media and Invited Presentations

- She's Building a Robot
  15th Jul., 2019, a book and interview series by Mick Liubinskas.

- Affective Computing: What We Do and Do Not Know
  22nd Nov., 2017, Emotech Ltd & Cocoon Networks, London, UK.

- Girls in Tech project
  8th Mar., 2017, an interview series by the School of Informatics at the University of Edinburgh.

- Word-Level Emotion Recognition in Spontaneous Dialogues with High-Level Features
  13th Mar., 2014, University of Bath, Department of Computer Science, UK.

References

- Please contact me for my list of references