Yahui Fu

Ph.D. candidate at Speech and Audio Processing Lab, Kyoto University, Kyoto, Japan
Email: fu.yahui.64p@st.kyoto-u.ac.jp/ fu.yahuiii@gmail.com

RESEARCH INTERESTS

- Spoken Dialogue System (empathetic/personalized response generation; knowledge reasoning; human-robot interaction)
- Multimodal Emotion Recognition

EDUCATION

Kyoto University   Kyoto, Japan
Ph.D. in Intelligence Science and Technology, Graduate School of Informatics   Oct. 2021 –Current

  – Supervisor: *Prof. Tatsuya Kawahara*

Japan Advanced Institute of Science and Technology   Nomi, Japan
M.E. in Information Science, School of Advanced Science and Technology   Apr. 2020 –June 2021

  – Supervisor: *Prof. Shogo Okada*

Tianjin University   Tianjin, China
M.E. in Computer Technology, Department of Intelligence and Computing   Sept. 2018 –June 2021

  – Supervisor: *Prof. Longbiao Wang*

EXPERIENCE

rinna Co., Ltd.   Tokyo, Japan
Research Intern   July 2023 - Sept. 2023

  – Personality recognition in monologue and dialogue using the realpersonachat corpus.

Japan Advanced Institute of Science and Technology   Nomi, Japan
Researcher   July 2021 - Sept. 2021

  – Multimodal (speech, linguistics) and knowledge graph modeling for emotion recognition.

SKILLS

- **Language:** Chinese (native); English (fluent); Japanese (beginner)
- **Programming:** Python, Matlab, C/C++, Java, Latex

PUBLICATIONS

JOURNAL ARTICLES

[1] **Yahui Fu**, Koji Inoue, Divesh Lala, Kenta Yamamoto, Chenhui Chu, and Tatsuya Kawahara, "Dual variational generative model and auxiliary retrieval for empathetic response generation by conversational robot", *Advanced Robotics*, pp. 1–13, 2023.

[2] Lili Guo, Longbiao Wang, Jianwu Dang, **Yahui Fu**, Jiaxing Liu, and Shifei Ding, "Emotion recognition with multimodal transformer fusion framework based on acoustic and lexical information", *IEEE MultiMedia*, vol. 29, no. 2, pp. 94–103, 2022.

[3] **Yahui Fu**, Shogo Okada, Longbiao Wang, Lili Guo, Yaodong Song, Jiaxing Liu, and Jianwu Dang, "Context-and knowledge-aware graph convolutional network for multimodal emotion recognition", *IEEE MultiMedia*, vol. 29, no. 3, pp. 91–100, 2022.

CONFERENCE PROCEEDINGS

[1] **Yahui Fu**, Koji Inoue, Chenhui Chu, and Tatsuya Kawahara, "Reasoning before responding: Integrating commonsense-based causality explanation for empathetic response generation", in *Proceedings of the 24th Meeting of the Special Interest Group on Discourse and Dialogue (SIGdial)*, 2023, pp. 645–656.

[2] **Yahui Fu**, Koji Inoue, Divesh Lala, Kenta Yamamoto, Chenhui Chu, and Tatsuya Kawahara, "Improving empathetic response generation with retrieval based on emotion recognition", in *The 13th International Workshop on Spoken Dialogue Systems Technology (IWSDS)*, 2023.

[3] Jiaxing Liu, Sen Chen, Longbiao Wang, Zhilei Liu, **Yahui Fu**, Lili Guo, and Jianwu Dang, "Multimodal emotion recognition with capsule graph convolutional based representation fusion", in *ICASSP 2021-2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, IEEE, 2021, pp. 6339–6343.

[4] **Yahui Fu**, Lili Guo, Longbiao Wang, Zhilei Liu, Jiaxing Liu, and Jianwu Dang, "A sentiment similarity-oriented attention model with multi-task learning for text-based emotion recognition", in *MultiMedia Modeling: 27th International Conference (MMM), Prague, Czech Republic, June 22–24, 2021, Proceedings, Part I 27*, Springer, 2021, pp. 278–289.

[5] **Yahui Fu**, Shogo Okada, Longbiao Wang, Lili Guo, Yaodong Song, Jiaxing Liu, and Jianwu Dang, "Conskgcn: Conversational semantic-and knowledge-oriented graph convolutional network for multimodal emotion recognition", in *2021 IEEE International Conference on Multimedia and Expo (ICME)*, 2021, pp. 1–6.

Patents

- Longbiao Wang, Yahui Fu, Jianwu Dang, and Lili Guo, "A Method for Textual Emotion Recognition based on Sentiment Similarity-oriented Attention", Chinese patent: CN111966824A, November 20, 2020.

Scholarships and Awards

- The establishment of university fellowships towards the creation of science and technology innovation, awarded by Japan Science and Technology Agency (JST). Oct. 2021–Sept. 2024

- Tianjin University-JAIST Collaborative Educational Program Scholarship, awarded by Japan Advanced Institute of Science and Technology (JAIST). Apr. 2020–Mar. 2021