

Yahui Fu

Postdoctoral Researcher at Speech and Audio Processing Lab, Kyoto University, Kyoto, Japan

Email: fu.yahui.6v@kyoto-u.ac.jp/ fu.yahuiii@gmail.com

Website: <https://fuyahuii.github.io>

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 – Sep. 2024

- Thesis: *Dialogue Comprehension and Personalization for Empathetic Response Generation*
- 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 – Jun. 2021

- Thesis: *Conversational Semantic- and Knowledge-guided Graph convolutional Network for Multimodal Emotion Recognition*
- Supervisor: Prof. Shogo Okada

Tianjin University

Tianjin, China

M.E. in Computer Technology, Department of Intelligence and Computing

Sep. 2018 – Jun. 2021

- Thesis: *A Study on Context-independent and Context-dependent Emotion Recognition*
- Supervisor: Prof. Longbiao Wang

EXPERIENCE

Kyoto University

Kyoto, Japan

Researcher

Oct. 2024 - current

- Project related to spoken dialogue system.

rinna Co., Ltd.

Tokyo, Japan

Research Intern

Jul. 2023 - Sep. 2023

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

Japan Advanced Institute of Science and Technology

Nomi, Japan

Researcher

Jul. 2021 - Sep. 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

SELECTED 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] **Yahui Fu**, Shogo Okada, Longbiao Wang, Lili Guo, Yaodong Song, Jiaying 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**, Chenhui Chu, and Tatsuya Kawahara, “Styemp: Stylizing empathetic response generation via multi-grained prefix encoder and personality reinforcement”, in *Proceedings of the 25th Annual Meeting of the Special Interest Group on Discourse and Dialogue (SIGdial)*, 2024, pp. 172–185.
- [2] **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.
- [3] **Yahui Fu**, Lili Guo, Longbiao Wang, Zhilei Liu, Jiaying Liu, and Jianwu Dang, “A sentiment similarity-oriented attention model with multi-task learning for text-based emotion recognition”, in *MultiMedia Modeling (MMM): 27th International Conference, Prague, Czech Republic, June 22–24, Proceedings, Part I 27*, Springer, 2021, pp. 278–289.
- [4] **Yahui Fu**, Shogo Okada, Longbiao Wang, Lili Guo, Yaodong Song, Jiaying Liu, and Jianwu Dang, “Consk-gcn: Conversational semantic-and knowledge-oriented graph convolutional network for multimodal emotion recognition”, in *IEEE International Conference on Multimedia and Expo (ICME)*, 2021, pp. 1–6.

WORKSHOP PROCEEDINGS

- [1] **Yahui Fu**, Haiyue Song, Tianyu Zhao, and Tatsuya Kawahara, “Enhancing personality recognition in dialogue by data augmentation and heterogeneous conversational graph networks.”, in *Proc. Int’l Workshop Spoken Dialogue Systems (IWSDS)*, Sapporo, Japan, 2024.
- [2] **Yahui Fu**, “Causality reasoning for empathy-enriched and personality-conditioned spoken dialogue system”, in *Proceedings of the 19th Annual Meeting of the Young Researchers’ Roundtable on Spoken Dialogue Systems (YRRSDS)*, Prague, Czechia: Association for Computational Linguistics, Sep. 2023, pp. 62–63.
- [3] **Yahui Fu**, Koji Inoue, Divesh Lala, Kenta Yamamoto, Chenhui Chu, and Tatsuya Kawahara, “Improving empathetic response generation with retrieval based on emotion recognition”, in *Proc. Int’l Workshop Spoken Dialogue Systems (IWSDS)*, Los Angeles, USA, 2023.

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