

# Dan Guo

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## Title

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Professor  
School of Computer Science and Information Engineering  
School of Artificial Intelligence  
Hefei University of Technology, China

## Research Interests

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My research interests include intelligent multimedia content analysis, computer vision, and machine learning. The major focus of my research is multimedia reasoning, visual question answering, audio-visual event understanding, and sign language recognition.

## Education Background

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<b>Yangtze University</b> <i>the B.E. degree in computer science and technology</i>	In 2004 China
<b>Huazhong University of Science and Technology</b> <i>the Ph.D. degree in system analysis and integration</i>	In 2010 China

## Working Experience

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<b>Postdoctoral fellow</b> <i>Hefei University of Technology</i> School of Computer Science and Information Engineering	2010.8 – 2012.8 China
<b>Lecturer</b> <i>Hefei University of Technology</i> School of Computer Science and Information Engineering	2012.8 – 2013.12 China
<b>Associate Professor</b> <i>Hefei University of Technology</i> School of Computer Science and Information Engineering	2013.12 – 2019.12 China
<b>Professor</b> <i>Hefei University of Technology</i> School of Computer Science and Information Engineering & School of Artificial Intelligence	2019.12 – now China

## Grants

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- **Outstanding Reviewer Award** of IEEE International Conference on Multimedia and Expo (IEEE ICME), 2020-07.
- **Outstanding Reviewer Award** of Computer Science journal, 2021-12.
- **Top-notch young talents for young scholars of High-end Talent Cultivation Action Program of Anhui Province, China**, 2023-09.

## Publications

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### Peer-Reviewed Conference Papers

- 1 Peipei Song, **Dan Guo\***, Xun Yang, Shengeng Tang, Erkun Yang, and Meng Wang\*. "Emotion-Prior Awareness Network for Emotional Video Captioning", ACM International Conference on Multimedia (**ACM MM, oral paper**), 2023.
- 2 Kun Li, **Dan Guo\***, Guoliang Chen, Feiyang Liu and Meng Wang. "Data Augmentation for Human Behavior Analysis in Multi-Person Conversations", **ACM MM Challenge paper**, 2023.
- 3 Jia Li, Wei Qian, Kun Li, Qi Li, **Dan Guo\***, and Meng Wang\*. "Exploiting Diverse Feature for Multimodal Sentiment Analysis", **ACM MM Challenge paper**, 2023.
- 4 Shuaiyang Li, **Dan Guo**, Kang Liu, Richang Hong, and Feng Xue. "Multimodal Counterfactual Learning Network for Multimedia-based Recommendation", Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR**), 2023.
- 5 Xinge Peng, Kun Li\*, Jiaxiu Li, Guoliang Chen, and **Dan Guo\***. "Multi-modality Fusion for Emotion Recognition in Videos", **IJCAI Challenge paper**, 2023.
- 6 Kun Li, **Dan Guo\***, Guoliang Chen, Xinge Peng, and Meng Wang. "Joint Skeletal and Semantic Embedding Loss for Micro-gesture Classification", **IJCAI Challenge paper**, 2023.
- 7 Tianyuan Xu, Xueliang Liu, Zhen Huang, **Dan Guo**, Richang Hong, and Meng Wang. "Early-learning regularized contrastive learning for cross-modal retrieval with noisy labels", ACM International Conference on Multimedia (**ACM MM**), 2022.
- 8 Shengeng Tang, Richang Hong\*, **Dan Guo\***, and Meng Wang, "Gloss Semantic-Enhanced Network with Online Back-Translation for Sign Language Production", ACM International Conference on Multimedia (**ACM MM**), 2022.
- 9 Jinxing Zhou, Jianyuan Wang, Jiayi Zhang, Weixuan Sun, Jing Zhang, Stan Birchfield, **Dan Guo**, Meng Wang\*, and Yiran Zhong\*. "Audio-Visual Segmentation", European Conference on Computer Vision (**ECCV**), 2022.
- 10 Hui Wang, **Dan Guo\***, Xiansheng Hua, and Meng Wang\*, "Pairwise VLAD Interaction Network for Video Question Answering", ACM International Conference on Multimedia (**ACM MM**), 2021.
- 11 Kun Li, **Dan Guo\***, and Meng Wang\*, "Proposal-Free Video Grounding with Contextual Pyramid Network", AAAI Conference on Artificial Intelligence (**AAAI**), 2021.
- 12 **Dan Guo**, Hui Wang\*, Hanwang Zhang, Zhengjun Zha, and Meng Wang\*, "Iterative Context-Aware Graph Inference for Visual Dialog", IEEE Conference on Computer Vision and Pattern Recognition (**CVPR, oral paper**), 2020.
- 13 **Dan Guo**, **Yang Wang\***, Peipei Song\*, and Meng Wang, "Recurrent Relational Memory Network for Unsupervised Image Captioning", International Joint Conference on Artificial Intelligence (**IJCAI**), 2020.
- 14 **Dan Guo**, Kun Li\*, and Meng Wang, "DADNet: Dilated-Attention Deformable ConvNet for Crowd Counting", ACM International Conference on Multimedia (**ACM MM, oral paper**), 2019.
- 15 **Dan Guo**, Shengeng Tang, and Meng Wang, "Connectionist Temporal Modeling of Video and Language: A Joint Model for Translation and Sign Labeling", International Joint Conference on Artificial Intelligence (**IJCAI**), 2019.
- 16 **Dan Guo**, Shuo Wang, Qi Tian, and Meng Wang, "Dense Temporal Convolution Network for Sign Language Translation", International Joint Conference on Artificial Intelligence (**IJCAI**), 2019.

- 17 **Dan Guo**, Hui Wang, and Meng Wang, "Dual Visual Attention Network for Visual Dialog", International Joint Conference on Artificial Intelligence (*IJCAI*), 2019.
- 18 Shuo Wang, **Dan Guo\***, Wengang Zhou, Zhengjun Zha, and Meng Wang, "Connectionist Temporal Fusion for Sign Language Translation", International ACM International Conference on Multimedia (*ACM MM*), 2018.
- 19 **Dan Guo**, Wengang Zhou, Houqiang Li, and Meng Wang, "Hierarchical LSTM for Sign Language Translation", AAAI Conference on Artificial Intelligence (*AAAI, oral paper*), 2018.
- 20 **Dan Guo**, Wengang Zhou, Meng Wang, and Houqiang Li. "Sign language recognition based on adaptive hmms with data augmentation", IEEE International Conference on Image Processing (*ICIP*), 2016.

#### Peer-Reviewed Journal Papers

- 21 Sheng Zhou, **Dan Guo\***, Jia Li, Xun Yang\*, and Meng Wang. "Exploring Sparse Spatial Relation in Graph Inference for Text-Based VQA", IEEE Transactions on Image Processing (*IEEE TIP*), 2023.
- 22 Kun Li, Jiaxiu Li, **Dan Guo\***, Xun Yang\*, and Meng Wang. "Transformer-based Visual Grounding with Cross-modality Interaction", ACM Transactions on Multimedia Computing, Communications and Applications (*ACM TOMM*), 2023.
- 23 Kang Liu, Feng Xue, **Dan Guo**, Peijie Sun, Shengsheng Qian, Richang Hong. "Multimodal Graph Contrastive Learning for Multimedia-Based Recommendation", IEEE Transactions on Multimedia (*IEEE TMM*), 2023.
- 24 Jinxing Zhou, **Dan Guo\***, and Meng Wang\*. "Contrastive Positive Sample Propagation along the Audio-Visual Event Line", IEEE Transactions on Pattern Analysis and Machine Intelligence (*IEEE TPAMI, IF 24.314*), 2022.
- 25 Peipei Song, **Dan Guo\***, Jun Cheng, and Meng Wang\*, "Contextual Attention Network for Emotional Video Captioning", IEEE Transactions on Multimedia (*IEEE TMM*), 2022.
- 26 Zhao Xie, Jiansong Chen, Kewei Wu, **Dan Guo**, and Richang Hong. "Global Temporal Difference Network for Action Recognition", IEEE Transactions on Multimedia (*IEEE TMM*), 2022.
- 27 Peipei Song, **Dan Guo\***, Jinxing Zhou, Mingliang Xu, and Meng Wang\*, "Memorial GAN with Joint Semantic Optimization for Unpaired Image Captioning", IEEE Transactions on Cybernetics (*IEEE TCYB*), 2022.
- 28 Kang Liu, Feng Xue, Xiangnan He, **Dan Guo**, and Richang Hong. "Joint multi-grained popularity-aware graph convolution collaborative filtering for recommendation", IEEE Transactions on Computational Social Systems (*IEEE TCSS*), 2022.
- 29 **Dan Guo**, Hui Wang, and Meng Wang\*. "Context-Aware Graph Inference with Knowledge Distillation for Visual Dialog", IEEE Transactions on Pattern Analysis and Machine Intelligence (*IEEE TPAMI, IF 24.314*), 2021.
- 30 Shengeng Tang, **Dan Guo\***, Richang Hong\*, and Meng Wang, "Graph-Based Multimodal Sequential Embedding for Sign Language Translation", IEEE Transactions on Multimedia (*IEEE TMM*), 2021.
- 31 **Dan Guo**, Hui Wang, Shuhui Wang, and Meng Wang\*, "Textual-Visual Reference-Aware Attention Network for Visual Dialog", IEEE Transactions on Image Processing (*IEEE TIP*), 2020.
- 32 **Dan Guo**, Wengang Zhou\*, Anyang Li, Houqiang Li, and Meng Wang\*, "Hierarchical Recurrent Deep Fusion Using Adaptive Clip Summarization for Sign Language Translation", IEEE Transactions on Image Processing (*IEEE TIP*), 2020.

- 33 Yuqi Fan, Wenlong Liu, **Dan Guo**, Weili Wu, and Dingzhu Du. "Shuffle Scheduling for MapReduce Jobs Based on Periodic Network Status", IEEE/ACM Transactions on Networking (**IEEE TON**), 2020.
- 34 Shuo Wang, **Dan Guo\***, Xin Xu, Li Zhuo, and Meng Wang, "Cross-Modality Retrieval by Joint Correlation Learning", ACM Transactions on Multimedia Computing Communications and Applications (**ACM TOMM**), 2019.
- 35 **Dan Guo**, Wengang Zhou\*, Houqiang Li\*, and Meng Wang\*, "Online Early-Late Fusion Based on Adaptive HMM for Sign Language Recognition", ACM Transactions on Multimedia Computing Communications and Applications (**ACM TOMM**), 2018.

## ArXiv Preprints

- 1 Wei Qian, **Dan Guo\***, Kun Li, Xilan Tian, and Meng Wang. "Dual-path tokenlearner for remote photoplethysmography-based physiological measurement with facial videos", arXiv preprint arXiv:2308.07771.
- 2 Jinxing Zhou, **Dan Guo\***, Yiran Zhong, and Meng Wang. "Improving audio-visual video parsing with pseudo visual labels", arXiv preprint arXiv:2303.02344.
- 3 Jiaxiu Li, Kun Li, Jia Li, Guoliang Chen, **Dan Guo\***, and Meng Wang. "Dual-Path Temporal Map Optimization for Make-up Temporal Video Grounding", arXiv preprint arXiv:2309.06176

## Academic Experience

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### Academic Member

- Senior Member of IEEE
- Member of ACM
- Senior member of CCF (China Computer Federation)

### Journal Reviewer

- International Journal of Computer Vision (**IJCV**)
- IEEE Transactions on Image Processing (**IEEE TIP**)
- IEEE Transactions on Multimedia (**IEEE TMM**)
- IEEE Transactions on Knowledge and Data Engineering (**IEEE TKDE**)
- IEEE Transactions on Circuits and Systems for Video Technology (**IEEE TCSVT**)
- IEEE Transactions on Neural Networks and Learning Systems (**IEEE TNNLS**)
- IEEE Transactions on Affective Computing (**IEEE TAC**)
- IEEE Transactions on Cybernetics (**IEEE TCYB**)
- IEEE Transactions on Systems, Man, and Cybernetics (**IEEE TSMC**)
- IEEE Transactions on Computational Social Systems (**IEEE TCSS**)
- ACM Transactions on Information Systems (**ACM TOIS**)
- ACM Transactions on Multimedia Computing Communications and Applications (**ACM TOMM**)
- Other Journals: CVIU, MTA, PR, KBS, ESWA, IEEE JBHI, etc.

### Conference Senior Program Committee (SPC) Member

- International Joint Conference on Artificial Intelligence (**IJCAI**)

### Conference Program Committee (PC) Member/Reviewer

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**)
- IEEE International Conference on Computer Vision (**ICCV**)
- European Conference on Computer Vision (**ECCV**)
- British Machine Vision Conference (**BMVC**)
- Asian Conference on Computer Vision (**ACCV**)
- AAAI Conference on Artificial Intelligence (**AAAI**)
- ACM International Conference on Multimedia (**ACM MM**)
- ACM Multimedia Asia (**MMAasia**)
- ACM International Conference on Information and Knowledge Management (**CIKM**)
- European Conference on Artificial Intelligence (**ECAI**)
- IEEE International Conference on Data Mining (**ICDM**)
- IEEE International Conference on Acoustics, Speech, and Signal Processing (**ICASSP**)
- IEEE International Conference on Automatic Face and Gesture Recognition (**FG**)
- International Conference on Pattern Recognition (**ICPR**)

### Other Reviewer

- Served as a reviewer in the National Natural Science Foundation of China.

### Chief Guest Editor

- In 2023, proposed and served as the chief guest editor for a special issue of "**Deep Learning for Robust Human Body Language Understanding**" on the **ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)** journal.
- In 2023, proposed and served as the chief guest editor for a special issue of "**Trustworthy Cross-Modal Reasoning for Video-Language Understanding**" on the **Computer Vision and Image Understanding (CVIU)** journal.

### Talk

- In Honor of Outstanding Academic Performance in Artificial Intelligence, I had been invited as a speaker of 2021 International Joint Conference on Artificial Intelligence (**IJCAI**)-**SAA Young Elite Symposium**.

### Competitions

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- **ACM International Conference on Multimedia (ACM MM) Grand Challenge** - Multimodal Group Behaviour Analysis for Artificial Mediation, **1st Place** in Bodily Behaviour Recognition Track, 2023.07.
- **ACM International Conference on Multimedia (ACM MM) Grand Challenge** - Multimodal Group Behaviour Analysis for Artificial Mediation, **1st Place** in Eye Contact Detection Track, 2023.07.
- **ACM International Conference on Multimedia (ACM MM) Grand Challenge** - Multimodal Group Behaviour Analysis for Artificial Mediation, **3rd Place** in Next Speaker Prediction Track, 2023.07.

- **ACM International Conference on Multimedia (ACM MM) Multi-modal Sentiment Analysis Challenge, 3rd Place** in MuSe-Personalisation Track, 2023.07.
- **International Joint Conference on Artificial Intelligence (IJCAI) Challenge- Micro-gesture Analysis for Hidden Emotion Understanding, 1st Place** in Micro-gesture Classification Track, 2023.05.
- **International Joint Conference on Artificial Intelligence (IJCAI) Challenge - Micro-gesture Analysis for Hidden Emotion Understanding, 2nd Place** in Micro-gesture Online Recognition Track, 2023.05.

## ***Projects***

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- **National Natural Science Foundation of China - General Program**, No. 62272144, Principal Investigator, 2023-2026.
- **National Key Research and Development Program of China**, No.2022YFB4500601, Sub-Project Principal Investigator, 2022-2025.
- **National Natural Science Foundation of China - Key Program**, No. U20A20183, Sub-Project Principal Investigator, 2021-2024.
- **National Key Research and Development Program of China**, No. 2018YFC0830103, Sub-Project Principal Investigator, 2018-2021.
- **National Natural Science Foundation of China - General Program**, No. 61876058, Principal Investigator, 2018-2022.
- **National Natural Science Foundation of China - General Program**, No. 61305062, Principal Investigator, 2013-2016.