

WANG Hao

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EDUCATION

- **Nanyang Technological University** Singapore
PhD in Computer Science and Engineering Aug 2019 – Jul 2023
 - Advisors: Miao Chun Yan, Guosheng Lin, Steven C. H. Hoi
- **Huazhong University of Science and Technology** China
B.Eng. in Automation Sept 2014 – Jun 2018

ACADEMIC APPOINTMENT

- **The Hong Kong University of Science and Technology (Guangzhou)** China
Assistant Professor, AI Thrust, Information Hub Sept 2023 –

RESEARCH INTERESTS

- Visual-to-text generation
- Visual content generation and editing
- Cross-modal retrieval

PUBLICATIONS

- [16] Jiacheng Wei*, **Hao Wang***, Jiashi Feng, Guosheng Lin, Kim-Hui Yap. “TAPS3D: Text-Guided 3D Textured Shape Generation from Pseudo Supervision.” IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2023. (* denotes equal contributions)
- [15] Yunfan Zhang*, **Hao Wang***, Guosheng Lin, Vun Chan Hua Nicholas, Zhiqi Shen, Chunyan Miao. “StarNet: Style-Aware 3D Point Cloud Generation.” arXiv, 2023. (* denotes equal contributions)
- [14] **Hao Wang**, Boyang Li, Haoming Zhong, Ahong Xu, Yingjie Huang, Jingfu Zou, Yuanyuan Chen, Pengcheng Wu, Yiqiang Chen, Cyril Leung, Chunyan Miao. “Smart Decision-Support System for Pig Farming.” Drones, 2022.
- [13] **Hao Wang**, Guosheng Lin, Ana García del Molino, Anran Wang, Jiashi Feng, Zhiqi Shen. “ManiCLIP: Multi-Attribute Face Manipulation from Text.” arXiv, 2022.
- [12] **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao. “Cross-Modal Graph with Meta Concepts for Video Captioning.” IEEE Transactions on Image Processing (TIP), 2022.
- [11] **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao. “Paired Cross-Modal Data Augmentation for Fine-Grained Image-to-Text Retrieval.” ACM International Conference on Multimedia (MM), 2022.
- [10] **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao. “3D Cartoon Face Generation with Controllable Expressions from a Single GAN Image.” arXiv, 2022.
- [9] Hanyu Shi, Jiacheng Wei, **Hao Wang**, Fayao Liu, Guosheng Lin. “Learning Temporal Variations for 4D Point Cloud Segmentation.” arXiv, 2022.
- [8] **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao. “Learning Structural Representations for Recipe Generation and Food Retrieval.” IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2022.

- [7] **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao. “Decomposing Generation Networks with Structure Prediction for Recipe Generation.” Pattern Recognition (PR), 2022.
- [6] **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao. “Cycle-Consistent Inverse GAN for Text-to-Image Synthesis.” ACM International Conference on Multimedia (MM), 2021.
- [5] **Hao Wang**, Doyen Sahoo, Chenghao Liu, Ke Shu, Palakorn Achananuparp, Ee-peng Lim, Steven C. H. Hoi. “Cross-Modal Food Retrieval: Learning a Joint Embedding of Food Images and Recipes with Semantic Consistency and Attention Mechanism.” IEEE Transactions on Multimedia (TMM), 2021.
- [4] **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao. “Structure-Aware Generation Network for Recipe Generation from Images.” European Conference on Computer Vision (ECCV), 2020.
- [3] Hanyu Shi, Guosheng Lin, **Hao Wang**, Tzu-Yi Hung, Zhenhua Wang. “SpSequenceNet: Semantic Segmentation Network on 4D Point Clouds.” IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020.
- [2] Doyen Sahoo, **Hao Wang**, Shu Ke, Xiongwei Wu, Hung Le, Palakorn Achananuparp, Ee-Peng Lim, Steven Hoi. “FoodAI: Food Image Recognition via Deep Learning for Smart Food Logging.” ACM SIGKDD conference, 2019.
- [1] **Hao Wang**, Doyen Sahoo, Chenghao Liu, Ee-peng Lim, Steven C. H. Hoi. “Learning Cross-Modal Embeddings with Adversarial Networks for Cooking Recipes and Food Images.” IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019.

RESEARCH EXPERIENCE

- **LILY Research Centre, NTU** Singapore
Research Assistant *Mar 2023 – Present*
 - Researched on text-based visual content generation and editing.
 - Advisor: Miao Chun Yan
- **TikTok** Singapore
Intern *Feb 2022 – Jan 2023*
 - Researched on text-guided face editing and 3D object generation.
 - Advisor: Jiashi Feng
- **Living Analytics Research Centre, SMU** Singapore
Research Engineer *Aug 2018 – Jul 2019*
 - Researched on cross-modal retrieval in food domain.
 - Advisor: Steven C. H. Hoi
- **Horizon Robotics** Beijing, China
Algorithm Intern *Jan 2018 – May 2018*
 - Researched on video face recognition.
 - Advisors: Ming Yang, Zhizhong Su
- **National Laboratory of Pattern Recognition, CASIA** Beijing, China
Intern *Jul 2017 – Sept 2017*
 - Researched on neural network-based data cleansing methods.
 - Advisors: Stan Z. Li, Jun Wan

SERVICE

- Reviewer for CVPR, ECCV, ACM MM, IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), IEEE Transactions on Neural Networks and Learning Systems (TNNLS), IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)