

# WANG Hao

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Research interests: **Cross-Modal Generation**

## ACADEMIC QUALIFICATIONS

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- **Nanyang Technological University (NTU)** Singapore  
*PhD Candidate in SCSE* Aug 2019 – Present
  - Advisors: Miao Chun Yan, Guosheng Lin, Steven Hoi
- **Huazhong University of Science and Technology (HUST)** Wuhan, China  
*Bachelor of Automation (*Outstanding Graduate*)* Sept 2014 – Jun 2018

## PUBLICATIONS

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- **Paired Cross-Modal Data Augmentation for Fine-Grained Image-to-Text Retrieval:**
  - **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao.
  - Accepted at ACM Multimedia 2022.
- **Cross-Modal Graph with Meta Concepts for Video Captioning:**
  - **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao.
  - Accepted at IEEE Transactions on Image Processing.
- **Learning Structural Representations for Recipe Generation and Food Retrieval:**
  - **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao.
  - Accepted at IEEE Transactions on Pattern Analysis and Machine Intelligence.
- **Decomposing Generation Networks with Structure Prediction for Recipe Generation:**
  - **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao.
  - Accepted at Pattern Recognition.
- **Cycle-Consistent Inverse GAN for Text-to-Image Synthesis:**
  - **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao.
  - Accepted at ACM Multimedia 2021.
- **Cross-Modal Food Retrieval: Learning a Joint Embedding of Food Images and Recipes with Semantic Consistency and Attention Mechanism:**
  - **Hao Wang**, Doyen Sahoo, Chenghao Liu, Shu Ke, Palakorn Achananuparp, Ee-peng Lim, Steven Hoi.
  - Accepted at IEEE Transactions on Multimedia.
- **Structure-Aware Generation Network for Recipe Generation from Images:**
  - **Hao Wang**, Guosheng Lin, Steven Hoi, Chunyan Miao.
  - Accepted at ECCV 2020.
- **SpSequenceNet: Semantic Segmentation Network on 4D Point Clouds:**
  - Hanyu Shi, Guosheng Lin, **Hao Wang**, Tzu-Yi Hung, Zhenhua Wang.
  - Accepted at CVPR 2020.
- **FoodAI: Food Image Recognition via Deep Learning for Smart Food Logging:**
  - Doyen Sahoo, **Wang Hao**, Shu Ke, Xiongwei Wu, Hung Le, Palakorn Achananuparp, Ee-Peng Lim, Steven Hoi.

- Accepted at KDD 2019.
- **Learning Cross-Modal Embeddings with Adversarial Networks for Cooking Recipes and Food Images:**
  - **Hao Wang**, Doyen Sahoo, Chenghao Liu, Ee-peng Lim, Steven Hoi.
  - Accepted at CVPR 2019.

## EMPLOYMENT HISTORY

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- **Living Analytics Research Centre (LARC)** SMU, Singapore  
*Research Engineer* *Aug 2018 - Aug 2019*
  - Involved in FoodAI project, which applies food recognition into daily life with app **Healthy 365**.  
Mainly took charge of model training.
  - Researched on cross-modal retrieval in food domain, introducing modality alignment to food retrieval.
  - Advisor: Steven Hoi
- **Horizon Robotics Inc.** Beijing, China  
*Algorithm Intern* *Jan 2018 - May 2018*
  - Researched on video face recognition.
  - Utilized deep learning to analyze the quality of each frame, which is used to obtain video representations by weighted averaging.
  - Advisors: Ming Yang, Zhizhong Su
- **National Laboratory of Pattern Recognition, CASIA** Beijing, China  
*Intern* *Jul 2017 - Sept 2017*
  - Researched on data cleansing methods based on neural networks.
  - Trained classifiers obtained from noisy label datasets with robust performance.
  - Advisors: Stan Z. Li, Jun Wan