

TAN WANG

UESTC, No.2006 Xiyuan Avenue ◇ Chengdu, Sichuan, P.R.China
(+86) 186-5602-3625 ◇ wangt97@hotmail.com ◇ Github: [Wangt-CN](#) ◇ Website: [Tan Wang](#)

RESEARCH INTERESTS

Vision-and-Language, Visual Reasoning, Causal Reasoning, Computer Vision

EDUCATION

University of Electronic Science and Technology of China (UESTC) *Sep. 2016 - Jun. 2020*

Honours Degrees, Electronic Information Engineering

GPA(Overall): **92.98**/100 or **3.99**/4.0

Rank: 2/284 (Overall) or 1/415 (first 2 years)

English: IELTS Total: **7.0** (Listening 7.0, Reading 8.0, Writing 6.0, Speaking 6.0)

Highlighted Courses: Calculus I (96/100), Calculus II (97/100), Pattern Recognition (99/100), Probability and Mathematical Statistics (96/100), Signals and Systems (95/100), Digital Signal Processing (96/100), Analog electronic Circuits (96/100), Electromagnetic Field Theory (97/100)

Chiba University, Japan

Aug. 2017

Exchange Program

Sakura Science Club scholarship awardee. Funded by Japan Science and Technology Agency (JST).

Nanyang Technological University (NTU), Singapore

Aug. 2020 - Present

1st Year Ph.D. Student

Supervisor: [Prof. Zhang Hanwang](#)

PUBLICATION & MANUSCRIPTS

Visual Commonsense R-CNN

- **Tan Wang**, Jianqiang Huang, Hanwang Zhang, Qianru Sun
- IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2020

Visual Commonsense Representation Learning via Causal Inference

- **Tan Wang**, Jianqiang Huang, Hanwang Zhang, Qianru Sun
- IEEE Conference on Computer Vision and Pattern Recognition MVM Workshop (CVPRW), 2020, **Oral**

Matching Images and Text with Multi-modal Tensor Fusion and Re-ranking

- **Tan Wang**, Xing Xu, Yang Yang, Alan Hanjalic, Heng Tao Shen and Jingkuan Song
- ACM Multimedia (ACM MM), 2019 **Oral Presentation, 4.96% acceptance rate**

Cross-Modal Attention with Semantic Consistence for Image-Text Matching

- Xing Xu*, **Tan Wang***, Yang Yang, Lin Zuo, Fumin Shen and Heng Tao Shen
- IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2020

Radial Graph Convolutional Network for Visual Question Generation

- Xing Xu*, **Tan Wang***, Yang Yang, Alan Hanjalic and Heng Tao Shen
- IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2020

RESEARCH EXPERIENCE

Nanyang Technological University (NTU)

Jul. 2019 - Present

Research Assistant, MReal Lab

Supervised by [Prof. Zhang Hanwang](#).

· Visual Reasoning and Commonsense Learning

- Motivation: Recently the research area focuses from recognition to cognition. The object detection and recognition is such reliable for us to move on visual and machine reasoning. We focus on how to create more smart and exciting model with **Causal Reasoning**.

University of Electronic Science and Technology of China (UESTC) Mar. 2018 - Jun. 2020

Research Assistant, Center for Future Media

Supervised by [Prof. Xing Xu](#) and [Prof. Yang Yang](#). Collaborated with [Prof. Alan Hanjalic](#).

· Image-text Matching with Semantic Consistence

- We propose a novel hybrid matching approach named Cross-modal Attention with Semantic Consistence (CASC) for image-text matching, which is a joint framework that performs cross-modal attention for local alignment and multi-label prediction for global semantic consistence.

· An Efficient Image-text Matching Framework

- We propose a novel framework for image text matching that achieves remarkable matching performance with acceptable model complexity and much less time consuming.

· Visual Question Generation Task

- We propose an innovative answer-centric approach for visual question generation termed Radial Graph Convolutional Network (Radial-GCN) to focus on the relevant image regions only.

SCHOLARSHIPS

Outstanding Graduates of Sichuan Province (Top 1% student)	2020
Outstanding Undergraduate Thesis Award (Top 2% student)	2020
National Scholarship (Top 2% student)	2016-2017
National Scholarship (Top 2% student)	2017-2018
Tang Lixin Sponsored Elite Scholarship (Only 60 awardees per year in UESTC)	2017-2018
Best Freshman Award (Only 1 awardee per year in Department)	2016-2017
Honor Student Scholarship (10 awardees per year in Department)	2017-2018
Outstanding Student Scholarship (Top 10% student)	2016-2019

LEADERSHIP

Lecture Group of EE Department

Founder & President

Oct. 2017 - Sep. 2018

- Organized academic forum, sharing sessions, Q&A meetings more than 30 times, serving over 1000 students on studying and future planing.
- The team grows to 30 people and won the Outstanding Student Organisation prize in 2018.

Innovative Entrepreneurship Project of UESTC

Team Leader

Sep. 2017 - Mar. 2018

- This project focus on the pedestrian detection in low-light condition with excellent conclusion. We combine the recent pedestrian detection models with the low-light image enhancement algorithm based on Laplace operator.
- Responsible for the code implementation and project promotion.

REVIEWS

Reviewer for ICME 2019

Help to review for CVPR 2020, CVPR 2019, AAAI 2019, KDD 2019, Access

SKILLS

Programming Languages

Python, Matlab, L^AT_EX, Shell

Deep Learning

Pytorch, Tensorflow

Others

Multisim, VerilogHDL