QITONG WANG

Last update: Jul. 14th, 2023.
Smith Hall, 18 Amstel Ave, Newark, DE 19716
(+1) 617-320-7576 ⋄ wqtwjt2242@gmail.com

RESEARCH INTERESTS

Computer Vision, Machine Learning.

EDUCATION

University of Delaware, Newark, Delaware — ***May. 2021 - Present***
Ph.D. Student in Computer Science — ***Advisor: Xi Peng***
The Department of Computer & Information Sciences.

Boston University, Boston, Massachusetts — ***Sep. 2018 - May. 2020***
M.S. in Computer Science — ***Advisor: Margrit Betke***
Department of Computer Science — **GPA: 3.68/4.0**

Wuhan University of Technology, Wuhan, China — ***Sep. 2014 - Jun. 2018***
B.Eng. in Software Engineering — **GPA: 91.04/100**
School of Computer Science and Technology

PUBLICATIONS

• **Qitong Wang, Long Zhao, Liangzhe Yuan, Ting Liu, Xi Peng. "Learning from Semantic Alignment between Unpaired Multiviews for Egocentric Video Recognition". International Conference on Computer Vision (ICCV), 2023.**

• **Qitong Wang*, Bin Fu*, Ming Li, Junjun He, Xi Peng and Yu Qiao. "Region-aware Arbitrary-shaped Text Detection with Progressive Fusion". IEEE Transactions on Multimedia (TMM), 2022. (IF: 8.18) (* indicates equal contributions) [paper]**

• **Yuliang Zou, Jinwoo Choi*, Qitong Wang, and Jia-Bin Huang. "Learning Representational Invariances for Data-Efficient Action Recognition". Computer Vision and Image Understanding (CVIU), 2022. (IF: 5.21) (* indicates corresponding author) [paper] [code] [project page]**

• **Yi Zheng, Qitong Wang, and Margrit Betke. "Deep Neural Network for Semantic-based Text Recognition in Images". IEEE International Conference on Image Processing (ICIP), 2021. [paper]**

• **Qitong Wang, Yi Zheng, Margrit Betke. "A Method for Detecting Text of Arbitrary Shapes in Natural Scenes That Improves Text Spotting". In: Workshop on Text and Documents in the Deep Learning Era (CVPR), 2020. [paper]**

INDUSTRY EXPERIENCE

Applied Scientist Intern — ***Jun. 2021 - Aug. 2021***
Rekognition and Video Team, Amazon, Palo Alto, CA [link] — ***Manager: R. Manmatha***
Description: Developed a novel framework in multimodal retrieval domain.

RESEARCH EXPERIENCES

Exploratory Inconsistency Analysis of Energy-critical Materials *Sep. 2021 - Present*
Graduate Research Assistant *Advisors: Julie Klinger, Xi Peng*
Description: Developed machine learning algorithms to help global measurements of the licit-illicit composition of ECM trade flows or their evolution over time.

Unpaired Video Multiview Learning *Sep. 2021 - Mar. 2023*
Graduate Research Assistant *Advisor: Xi Peng*
Deep-REAL Laboratory in University of Delaware [link]
Description: Developed a novel representation learning method which utilizes unpaired third-person videos to help first-person video learning, whose related work was accepted by ICCV-2023.

Video Data Augmentation in Semi-supervised Learning *Sep. 2020 - Dec. 2020*
Graduate Research Assistant *Advisor: Jia-Bin Huang*
Vision and Learning Laboratory in Virginia Tech
Description: Developed new data augmentation methods which improve the performances in video action recognition task in a low-data regime, whose related work was accepted by CVIU-2022.

Region-aware Scene Text Detection with Multi-scale Fusion *May. 2020 - Aug. 2020*
Research Intern (Remote) *Advisor: Yu Qiao*
Shenzhen Institutes of Advanced Technology of Chinese Academy of Sciences [link]
Description: Proposed a novel segmentation-based text detection method which adaptively extracts text-related information and efficiently fuses them from multiple scales, whose related work was accepted by TMM-2022.

New Method for Detecting Text of Arbitrary Shapes *Aug. 2019 - Apr. 2020*
Graduate Research Assistant *Advisor: Margrit Betke*
Artificial Intelligence Research (AIR) at Boston University [link]
Description: Introduced an effective framework for text detection named UHT which is short for UNet, Heatmap, and Textfill Algorithm to reach the scene text detection goal, whose related work was accepted by CVPR-W-2020.

Multimodal Semantic-based Sentence Recognition *Jan. 2019 - Aug. 2019*
Graduate Research Assistant *Advisor: Margrit Betke*
Artificial Intelligence Research (AIR) at Boston University [link]
Description: Proposed a novel "semantic-based text recognition" (SSR) deep learning model that reads text in images with the help of understanding context, whose related work was accepted by ICIP-2021.

ACADEMIC SERVICES

Journal Reviewer: IEEE Transactions on Image Processing (TIP).

Journal Volunteering Reviewer: IEEE Transactions on Artificial Intelligence (TAI).

Conference Volunteering Reviewer: CVPR 2023, NeurIPS 2023.

TEACHING EXPERIENCES

Grader of CS530 : Graduate Algorithms **Fall 2019**

Graduate Teaching Assistant of ECE2514 : Computational Engineering **Fall 2020**

Graduate Teaching Assistant of ECE5494 : AI Innovation Machine Learn. **Spring 2021**

SKILLS

Programming Languages: Python, LaTeX, C, C++, Java, Go, MATLAB, Lingo.

Libraries in Machine Learning: PyTorch, NumPy, OpenCV.

Platforms: Ubuntu, Linux, MacOS, Windows.