

Taotao Jing

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[\[Google Scholar\]](#) [\[DBLP\]](#) [\[Home Page\]](#) [\[Research Gate\]](#) [\[LinkedIn\]](#) [\[Github\]](#)

EDUCATION

School of Science & Engineering Tulane University	New Orleans, USA
<i>Ph.D. candidate in Computer Science</i>	Jan. 2021 - Aug. 2023 (expected)
Purdue School of Engineering & Technology Purdue University	Indianapolis, USA
<i>Ph.D. student in Electrical and Computer Engineering</i> (transferred out)	Jan. 2019 - Dec. 2020
Department of Electrical & Computer Engineering Northeastern University	Boston, USA
<i>M.S. in Computer System Engineering</i>	Sep. 2016 - May 2018
Department of Electronics and Information Engineering Xi'an Jiaotong University	Xi'an, China
<i>B.S. in Electronic Science and Technology</i>	Sep. 2012 - July 2016

WORK & RESEARCH EXPERIENCE

Zillow Group , Seattle, USA	June 2022 - Present
<i>Computer Vision Intern</i>	Supervisor: Dr. Sing Bing Kang & Dr. Lichen Wang
<ul style="list-style-type: none">Proposed a novel framework to solve the 3D room layout estimation of complex indoor space based on a single panoramaExplored the fairness challenges of layout estimation across different types of indoor spaces and arbitrary camera poses	
Tulane University , New Orleans, USA	Jan. 2021 - Present
<i>Research Assistant</i>	Supervisor: Prof. Zhengming Allan Ding
<ul style="list-style-type: none">Built a pedestrian behavior dataset for socially intelligent autonomous vehicles with multi-modality annotationsProposed a novel interpretable driving decision prediction framework producing human-friendly explanationsExplored disagreement and uncertainty of human drivers and proposed a novel pedestrian intent prediction framework	
Purdue University , Indianapolis, USA	Sep. 2018 - Dec. 2020
<i>Research Assistant</i>	Supervisor: Prof. Zhengming Allan Ding
<ul style="list-style-type: none">Proposed an augmented multi-modality fusion framework to discover novel knowledge unseen in the training data in both visual and semantic space for generalized zero-shot sketch-based image retrieval (GZS-SBIR)Explored a challenging but practical task as understanding the unknown categories in the open-set tasks, and designed an effective framework to identify seeing categories and recover semantic attributes for unseen categories in the target domain	
Northeastern University, SMILE LAB , Boston, USA	Jan. 2018 - July 2018
<i>Research Assistant</i>	Supervisor: Prof. Yun Raymond Fu
<ul style="list-style-type: none">Collected and introduced the first, large-scale EV-Action dataset consisting of RGB, depth, electromyography, and two skeleton modalities for human action recognition tasks including over 7,000 samples from 70 human subjects	

PUBLICATIONS & PREPRINTS

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- Jing, Taotao**, Haifeng Xia, Renran Tian, Haoran Ding, Xiao Luo, Joshua Domeyer, Rini Sherony, and Zhengming Ding. "InAction: Interpretable Action Decision Making for Autonomous Driving." *Proceedings of the European Conference on Computer Vision (ECCV)*, 2022.
 - Xia, Haifeng, **Taotao Jing**, and Zhengming Ding. "Maximum Structural Generation Discrepancy for Unsupervised Domain Adaptation." *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2022.
 - Jing, Taotao**, Haifeng Xia, Jihun Hamm, and Zhengming Ding. "Augmented Multi-Modality Fusion for Generalized Zero-Shot Sketch-based Visual Retrieval." *IEEE Transactions on Image Processing (TIP)*, 2022.
 - Jing, Taotao**, Bingrong Xu, Jingjing Li, and Zhengming Ding. "Towards Fair Knowledge Transfer for Imbalanced Domain Adaptation." *IEEE Transactions on Image Processing (TIP)*, 2021.
 - Jing, Taotao**, Hongfu Liu, and Zhengming Ding. "Towards β Novel Target Discovery Through Open-Set Domain Adaptation." *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV) (Oral)*, 2021
 - Xia, Haifeng, **Taotao Jing**, and Zhengming Ding. "Semi-supervised Domain Adaptation Retrieval via Discriminative Hashing Learning." *Proceedings of the ACM International Conference on Multimedia (MM)*, 2021.
 - Jing, Taotao**, and Zhengming Ding. "Adversarial Dual Distinct Classifiers for Unsupervised Domain Adaptation." *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2020.
 - Jing, Taotao**, Haifeng Xia, and Zhengming Ding, "Adaptively-Accumulated Knowledge Transfer for Partial Domain Adaptation." *Proceedings of the ACM International Conference on Multimedia (MM)*, 2020.
 - Wang, Lichen, Bin Sun, Joseph Robinson, **Taotao Jing**, and Yun Fu. "EV-Action: Electromyography-Vision Multi-Modal Action Dataset." *IEEE International Conference on Automatic Face and Gesture Recognition (FG)*, 2020.
 - Chen, Tina*, **Taotao Jing***, Renran Tian, Yaobin Chen, Joshua Domeyer, Heishiro Toyoda, Rini Sherony, Zhengming Ding. "PSI: A Pedestrian Behavior Dataset for Socially Intelligent Autonomous Car." arXiv preprint arXiv:2112.02604, 2021.

TECHNICAL SKILLS

Machine Learning: PyTorch, TensorFlow, Python, MATLAB, Keras

Programming: Java, MySQL, MongoDB, JavaScript, Shell, Spring MVC, HTML, AngularJS, CSS, Git, LaTeX, Linux