

## Weijian Xu

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CONTACT INFORMATION	Computer Science and Engineering 9500 Gilman Drive, La Jolla, CA 92093	<i>Phone:</i> +1 (858) 888-6347 <i>E-mail:</i> wex041@eng.ucsd.edu <i>Site:</i> <a href="https://weijianxu.com">https://weijianxu.com</a>
RESEARCH INTERESTS	Deep Learning and Computer Vision	
EDUCATION	<b>University of California San Diego</b> , La Jolla, CA <i>Ph.D. in Computer Science</i> <ul style="list-style-type: none"><li>• Advisor: Zhuowen Tu</li></ul>	<b>2018-Present</b>
	<b>University of California San Diego</b> , La Jolla, CA <i>M.S. in Computer Science</i> <ul style="list-style-type: none"><li>• Overall GPA: 3.97/4.00</li><li>• AI track GPA: 4.00/4.00</li></ul>	<b>2016-2018</b>
	<b>Beihang University</b> , Beijing, China <i>B.E. in Computer Science</i> <ul style="list-style-type: none"><li>• Selected into Honors College</li><li>• Overall GPA: 3.88/4.00</li></ul>	<b>2012-2016</b>
RESEARCH EXPERIENCE	<b>University of California San Diego</b> , La Jolla, CA <i>Graduate Research Assistant</i> , Mentor: Zhuowen Tu <ul style="list-style-type: none"><li>– Focus on structural representation learning and apply it to a wide range of applications.</li><li>– Developed an end-to-end multi-scale transformer for line segment detection. This work is in submission.</li><li>– Developed a constellation model for few-shot image classification. This work is in submission.</li><li>– Developed a geometry-aware skeleton detection method with a weighted Hausdorff distance and a geometrically weighted cross-entropy loss. This work is accepted by BMVC 2019.</li><li>– Developed the Wasserstein introspective neural network and applied it to 2D and 3D generative models. Related works are accepted by CVPR 2018 and AAAI 2019.</li></ul>	<b>2017-Present</b>
	<b>Microsoft AI and Cloud</b> , Redmond, WA <i>Research Intern</i> , Mentor: Baoyuan Wang Developed a self-supervised face representation learning framework for detection, tracking and other downstream tasks.	<b>2020</b>
	<b>Facebook AI Applied Research</b> , Menlo Park, CA <i>Research Intern</i> , Mentor: Tamara Berg Developed a robust fashion representation for instance retrieval task by restoring deformed instances and masking occluded features.	<b>2019</b>
	<b>Microsoft Research Asia</b> , Beijing, China <i>Research Intern</i> , Mentor: Jingdong Wang Developed a few-shot learning algorithm by applying task-dependent disentangled feature transformation into feature embedding.	<b>2018</b>

PUBLICATIONS	6. <b>Weijian Xu</b> , Yifan Xu, Huaijin Wang and Zhuowen Tu. Constellation Nets for Few-Shot Learning. In submission.	
	5. Yifan Xu, <b>Weijian Xu</b> , David Cheung and Zhuowen Tu. Line Segment Detection Using Transformers without Edges. In submission.	
	4. Zheng Ding, Yifan Xu, <b>Weijian Xu</b> , Gaurav Parmar, Yang Yang, Max Welling and Zhuowen Tu. Guided Variational Auto-Encoder for Disentanglement Learning. In <i>IEEE/CVF Computer Vision and Pattern Recognition (CVPR)</i> , 2020.	
	3. <b>Weijian Xu</b> , Gaurav Parmar and Zhuowen Tu. Geometry-Aware End-to-End Skeleton Detection. In <i>British Machine Vision Conference (BMVC)</i> , 2019.	
	2. Wenlong Huang*, Brian Lai*, <b>Weijian Xu</b> and Zhuowen Tu. 3D Volumetric Modeling with Introspective Neural Networks. In <i>the Thirty-Third AAAI Conference on Artificial Intelligence (AAAI)</i> , 2019.	
	1. Kwonjoon Lee, <b>Weijian Xu</b> , Fan Fan and Zhuowen Tu. Wasserstein Introspective Neural Networks. In <i>IEEE/CVF Computer Vision and Pattern Recognition (CVPR)</i> , 2018 ( <b>Oral</b> ).	
AWARDS	NeurIPS Top 10% Reviewer	<b>2020</b>
	GSA Travel Grant in UC San Diego	<b>2018</b>
	National Scholarship of China	<b>2015</b>
	Run Corporation Scholarship	<b>2015</b>
	Honorable Prize in the Interdisciplinary Contest in Modeling	<b>2015</b>
	First Prize Scholarship for Freshman in Beihang University	<b>2012</b>
TEACHING EXPERIENCE	<b>Teaching Assistant</b> , University of California San Diego CSE 152A - Introduction to Computer Vision I	<b>Winter 2021</b>
	<b>Teaching Assistant</b> , University of California San Diego COGS 118A - Supervised Machine Learning Algorithms	<b>Winter 2020</b>
	<b>Teaching Assistant</b> , University of California San Diego COGS 181 - Neural Networks and Deep Learning	<b>Spring 2019</b>
	<b>Teaching Assistant</b> , University of California San Diego COGS 118A - Introduction to Machine Learning I	<b>Winter 2018</b>
PROFESSIONAL ACTIVITY	Reviewer:	
	• CVPR.	<b>2021</b>
	• AAAI, CVPR, ECCV, NeurIPS.	<b>2020</b>
	• CVPR, ICCV.	<b>2019</b>
MISC.	Languages and Frameworks: Python, C/C++, PyTorch.	
	Development Environment: Linux/Unix, macOS and Windows.	
	Fluent in English and Chinese.	