Weijian Xu

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RESEARCH INTERESTS

Deep Learning and Computer Vision

EDUCATION

University of California San Diego, La Jolla, CA

2018-Present

Ph.D. in Computer Science
• Advisor: Zhuowen Tu

University of California San Diego, La Jolla, CA

2016-2018

M.S. in Computer ScienceOverall GPA: 3.97/4.00AI track GPA: 4.00/4.00

Beihang University, Beijing, China

2012-2016

B.E. in Computer ScienceSelected into Honors College

• Overall GPA: 3.88/4.00

RESEARCH EXPERIENCE

Facebook AI Applied Research, Menlo Park, CA

2019

Research Intern, Mentor: Tamara Berg

Developed a robust fashion representation for instance retrieval task by restoring deformed instances and masking occluded features.

Microsoft Research Asia, Beijing, China

2018

Research Intern, Mentor: Jingdong Wang

Developed a few-shot learning algorithm by applying task-dependent disentangled feature transformation into feature embedding.

University of California San Diego, La Jolla, CA

2017-2019

Graduate Research Assistant, Mentor: Zhuowen Tu

- 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.
- 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.

Tsinghua University, Beijing, China

2015-2016

Undergraduate Research Assistant, Mentor: Jiwu Shu Developed a distributed in-memory file system with non-volatile memory and RDMA support.

PUBLICATIONS

- 6. **Weijian Xu**, Gaurav Parmar and Zhuowen Tu. Geometry-Aware End-to-End Skeleton Detection. In *British Machine Vision Conference* (BMVC), 2019.
- 5. Wenlong Huang*, Brian Lai*, **Weijian Xu** and Zhuowen Tu. 3D Volumetric Modeling with Introspective Neural Networks. In the Thirty-Third AAAI Conference on Artificial Intelligence (AAAI), 2019.

- 4. Kwonjoon Lee, **Weijian Xu**, Fan Fan and Zhuowen Tu. Wasserstein Introspective Neural Networks. In *IEEE/CVF Computer Vision and Pattern Recognition* (CVPR), 2018 (**Oral**).
- 3. Weijian Xu and Jingdong Wang. Task-Dependent Disentangled Feature Transformation for Few-shot Learning. In submission.
- 2. Yuezhou Sun, Haoming Zhang, **Weijian Xu**, Heidi Cheng, Raimondas Kiveris, Feng Han and Zhuowen Tu. Detecting Line Segments as Objects. In submission.
- 1. Zheng Ding, Yifan Xu, **Weijian Xu**, Gaurav Parmar, Yang Yang, Max Welling and Zhuowen Tu. Guided Variational Auto-Encoder for Disentanglement Learning. In submission.

Awards	GSA Travel Grant in UC San Diego	2018
	National Scholarship of China	2015
	Run Corporation Scholarship	2015
	Honorable Prize in the Interdisciplinary Contest in Modeling	2015
	First Prize Scholarship for Freshman in Beihang University	2012
Traching	Toughing Aggistant University of California San Diago	Winter 2020
TEACHING EXPERIENCE	Teaching Assistant , University of California San Diego COGS 118A - Supervised Machine Learning Algorithms	winter 2020
	Teaching Assistant , University of California San Diego COGS 181 - Neural Networks and Deep Learning	Spring 2019
	Teaching Assistant , University of California San Diego COGS 118A - Introduction to Machine Learning I	Winter 2018
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Professional Activity

Reviewer:

• AAAI, CVPR, ECCV.	2020
• CVPR, ICCV.	2019

MISC.

Languages and Frameworks: Python, C/C++, PyTorch, TensorFlow.

Development Environment: Linux/Unix, macOS and Windows.

Fluent in English and Chinese.