

Jing Shi

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Education

- 2017–present **Ph.D.**, *University of Rochester*, Rochester.
Computer Science. Supervised by *prof. Chenliang Xu*.
- 2013–2017 **Bachelor**, *University of Electronic Science and Technology of China*, Chengdu,
GPA:3.97/4.00 (92.2/100) Ranking:1/209.
Automation Engineering

Work & Research Experience

- May.2021– **Adobe Research**, *San Jose, CA, USA*,
Sep.2021 Research Intern, Mentor: Ning Xu.
A Unified Model for Open-Domain Image Editing: Create a unified model with an editing space that is compatible for various downstream tasks with open-domain images.
- Creating a pretrained image-to-image translation model with an editing space that can control the image editing style.
 - Analyzing the editing space with inversion, interpolation, clustering, disentangling.
 - A unified model that can handle multimodal image editing, language-guided image editing, exemplar-based image editing, editing style clustering and recommendation.
- May.2019– **Adobe Research**, *San Jose, CA, USA*,
Sep.2019 Research Intern, Mentor: Ning Xu.
Language-Driven Image Editing: automatic image editing controlled by language.
- Collecting new dataset of Photoshop editing request from real users with rich annotations.
 - Editing by mapping the language into a standard editing operation sequence.
 - Further learning the mapping using RL and planning based methods.
- May.2018– **Tencent AI Lab**, *Shenzhen, Guangdong, China*,
Sep.2018 Research Intern, Mentor: Jia Xu, Boqing Gong.
Weakly-Supervised Video Grounding: given a language and its described video clip, localize the described entity into the video, but train without bounding box annotations.
- Exploring contextual similarity between frame and entity; exploring visual clustering loss.
- Sep.2017– **UR Vision Group**, *Rochester, NY, USA*,
present Research Assistant, Advisor: *prof. Chenliang Xu*.
- Weakly-supervised scene graph generation with graph matching.
 - Neural ordinary differential equation for irregularly-observed time series modeling.
 - Video object detection based on deep feature flow.

Mar.2016– **UESTC Rototics Center**, *Chengdu, Sichuan, China*,
July.2017 Research Assitant, Advisor: *prof. Wei He.*
Vibration Control Researches on Flexible System: Modelled the hoisting crane system as a variable length cable with a payload attached to its free end and proposed boundary control law to suppress both longitudinal and lateral vibrations of the cable.

Awards

- 2021 Recipient of **Intern Choice Award (top 3%)** of Adobe Code Quality Jam.
- 2016 Recipient of **Outstanding Graduates** of Sichuan province.
- 2015-2016 Recipient of **Tanglixin Scholarship(top 0.5%)**.
- 2014-2015 Recipient of **National Scholarship(top 2%)**.
- 2015 **Meritorious winner** of American Interdisciplinary Contest In Modeling(**top 1.4%**).
- 2015 **First Prize** of China Undergraduate Mathematical Contest In Modeling.
- 2014 **First Prize** of Chinese Undergraduate Mathematics Competitions.
- 2015 **Second Prize** of National Undergraduate Electronic Design Contest.

Skills

Programming C/C++,Python,MATLAB,Java
Electronic Familiar with MCU STM32 series, Cadence
Amateur Chinese Handwriting Certificate VIII National Pencil Sketch Certificate VIII

Publications

- [1] **Jing Shi**, N. Xu, Z. Haitian, S. Alex, L. Jiebo, and C. Xu, "Space-edit: Learning a unified editing space for open-domain image editing," in *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2022.
- [2] **Jing Shi**, Y. Zhong, N. Xu, Y. Li, and C. Xu, "A simple baseline for weakly-supervised scene graph generation," in *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, 2021.
- [3] Y. Zhong, **Jing Shi**, J. Yang, C. Xu, and Y. Li, "Learning to generate scene graph from natural language supervision," in *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, 2021.
- [4] W. Jiang, N. Xu, J. Wang, C. Gao, **Jing Shi**, Z. Lin, and S. Liu, "Language-guided global image editing via cross-modal cyclic mechanism," in *Proceedings of the IEEE/CVF International Conference on Computer Vision (ICCV)*, 2021.
- [5] **Jing Shi**, N. Xu, Y. Xu, T. Bui, F. Deroncourt, and C. Xu, "Learning by planning: Language-guided global image editing," in *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.
- [6] S. Wang, W. Zhao, Z. Kou, **Jing Shi**, and C. Xu, "How to make a blt sandwich? learning to reason towards understanding web instructional videos," in *2021 IEEE Winter Conference on Applications of Computer Vision (WACV)*, IEEE, 2021.

- [7] **Jing Shi**, J. Bi, Y. Liu, and C. Xu, "Cubic spline smoothing compensation for irregularly sampled sequences," *arXiv preprint arXiv:2010.01381*, 2020.
- [8] Y. Liu, Y. Xing, X. Yang, X. Wang, D. Jin, and **Jing Shi**, "Learning continuous-time dynamics by stochastic differential networks," *arXiv preprint arXiv:2006.06145*, 2020.
- [9] **Jing Shi**, N. Xu, T. Bui, F. Deroncourt, Z. Wen, and C. Xu, "A benchmark and baseline for language-driven image editing," in *Asian Conference on Computer Vision (ACCV)*, Springer, 2020.
- [10] W. Zhao, S. Wang, Z. Xie, **Jing Shi**, and C. Xu, "Gan-em: Gan based em learning framework," in *Proceedings of the 28th International Joint Conference on Artificial Intelligence (IJCAI)*, pp. 4404–4411, AAAI Press, 2019.
- [11] **Jing Shi**, J. Xu, B. Gong, and C. Xu, "Not all frames are equal: Weakly-supervised video grounding with contextual similarity and visual clustering losses," in *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, pp. 10444–10452, 2019.
- [12] Y. Tian, **Jing Shi**, B. Li, Z. Duan, and C. Xu, "Audio-visual event localization in unconstrained videos," in *Proceedings of the European Conference on Computer Vision (ECCV)*, pp. 247–263, 2018.
- [13] X. He, W. He, **Jing Shi**, and C. Sun, "Boundary vibration control of variable length crane systems in two-dimensional space with output constraints," *IEEE/ASME Transactions on Mechatronics*, vol. 22, no. 5, pp. 1952–1962, 2017.
- [14] Y. Wang, H. Ke, **Jing Shi**, B. Gao, and G. Tian, "Impact damage detection and characterization using eddy current pulsed thermography," in *IEEE Far East Forum Nondestruct Eval Test*, 2016.

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