Chen Li

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Website: `https://superlc1995.github.io/`

Research Interests

I am broadly interested in computer vision, machine learning, topological data analysis, uncertainty estimation, and diffusion model, focusing on using uncertainty-driven ideas to deal with computer vision/machine learning problems.

Education

- **Stony Brook University,**
  Department of Biomedical Informatics, USA
  Ph.D. Candidate, Jan. 2020 - Now
- **Stony Brook University,**
  Department of Applied Mathematics & Statistics, USA
  Master of Science , Sep. 2018 - Jul. 2020
- **Jilin University,**
  School of Mathematics, China
  Bachelor of Science, Sep. 2014 - Jul. 2018

Publications

(* indicates equal contribution)

[1] Spatial Diffusion for Cell Layout Generation
Chen Li, Xiaoling Hu, Shahira Abousamra, Meilong Xu, Chao Chen
International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI), 2024

[2] Calibrating Uncertainty for Semi-Supervised Crowd Counting
Chen Li, Xiaoling Hu, Shahira Abousamra, Chao Chen
International Conference on Computer Vision (ICCV), 2023

[3] Confidence Estimation Using Unlabeled Data.
Chen Li, Xiaoling Hu, Chao Chen
International Conference on Learning Representations (ICLR), 2023

[4] Spatial Transcriptomic Analysis Reveals Associations between Genes and Cellular Topology in Breast and Prostate Cancers.
Lujain Alsaleh, **Chen Li**, Justin L. Couetil, Ze Ye, Kun Huang, Jie Zhang, Chao Chen, Travis S. Johnson
Cancers, 2022

Selected Honors and Awards

- Third Class Academic Scholarship, Jilin University, 2016 (20%)
- Second Class Academic Scholarship, Jilin University, 2015 (15%)

Experiences

Stony Brook University, Department of BMI, USA **Sep. 2020 - Present**
Research Assistant
Advisor: *Prof.* Chao Chen

- Uncertainty estimation
- Semi-supervised learning
- Crowd counting
- Diffusion model

United Imaging Intelligence America **Jun. 2024 - Sep. 2024**
Research Intern
Advisor: *Dr.* Xiao Chen

- Cross-domain conditional generation
- Diffusion model
- Cardiac magnetic resonance imaging

Project: Pseudo-labeling driven cross-domain CMR image generation using conditional diffusion model.

Skills

- **Languages**: C, Matlab, Python
- **OS**: Linux, Windows
- **Tools**: Torch, PyTorch, OpenCV, matplotlib