

# Dejia Xu

@lr1d

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📄 <https://github.com/lr1d>

## Education

2017 – now **School Of Electronics Engineering and Computer Science, Peking University, Beijing.**  
2014 – 2017 **Dalian No.24 High School, Liaoning.**

## Selected Awards

2016 National Olympiad in Informatics, Bronze medal  
2016 National Olympiad in Informatics Winter Camp, Silver medal  
2015 National Olympiad in Informatics, Bronze medal

## Languages

◦ Chinese (Native)      ◦ English (Fluent – CET-4: 585, CET-6: 571)

## Research Experience

2018.7 - now **Spatial and Temporal Restoration, Understanding and Compression Team**  
Wangxuan Institute of Computer Technology, Peking University  
Research Intern. Advised by Prof. Jiaying Liu.

### Projects:

- Single Image Deraining
- Joint Inpainting and Colorization
- Low Light Enhancement and Face Detection.

### Service:

- Co-organize the workshop and challenge: "Bridging the Gap between Computational Photography and Visual Recognition (UG2+)", in conjunction with IEEE CVPR 2019

## Current Research Interests

◦ Deep learning based image processing      ◦ Image enhancement in adverse conditions

## Publications

- [1] Wenhan Yang, Shiqi Wang, **Dejia Xu**, Xiaodong Wang and Jiaying Liu. "Towards Scale-Free Rain Streak Removal via Self-Supervised Fractal Band Learning," *Proc. AAAI Conf. on Artificial Intelligence*, 2020.
- [2] Minhao Fan, **Dejia Xu**, Wenjing Wang, Jiaying Liu. "Semantic Layer-Aware Low-Light Enhancement," *In Submission*, 2020.
- [3] **Dejia Xu**, Wenhan Yang, Minhao Fan, Jiaying Liu. "From Signal Restoration to Machine Perception: A Novel Benchmark for Low-Light Enhancement," *In Submission*, 2020.

## Selected Projects

- 1 The OI Wiki project and its ecosystem which aims to share knowledge about competitive programming. Available at [github.com/OI-wiki/OI-wiki](https://github.com/OI-wiki/OI-wiki).
- 2 Collaborated in the development of pytorch-lightning (a lightweight PyTorch wrapper for ML researchers). Available at [github.com/williamFalcon/pytorch-lightning](https://github.com/williamFalcon/pytorch-lightning).
- 3 Website for SAST(Student Association for Science and Technology) in PKU-EECS to manage contestants and volunteers, written in Node.js with Express.js. Available at [github.com/KnowingNothing/web\\_server\\_sast](https://github.com/KnowingNothing/web_server_sast).
- 4 A tool to compile markdown syntax tree ([github.com/syntax-tree/mdast](https://github.com/syntax-tree/mdast)) to  $\text{\LaTeX}$ , written in Node.js with remarkjs. Available at [github.com/lr1d/remark-latex](https://github.com/lr1d/remark-latex).
- 5 (2016 - 2017.7) Maintained hosts file (for IPv4 Google access in mainland China) for academic use. Available at [github.com/GoogleHosts/hosts](https://github.com/GoogleHosts/hosts).