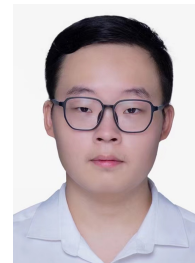


YANGZHUO LI

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EDUCATIONAL BACKGROUND

Undergraduate : Jilin University

2022 -now

Undergraduate in Jilin University 2022 science experimental class (computer, Tang Aoqing class), in accordance with the Jilin University top-notch class training program, has been determined to obtain the qualification for exemption. His undergraduate advisor is Niu Yan of Jilin University, and he is currently the first author of one article in icme 2025. GPA: 3.71 / 4.00.

HONORS

2024 American Collegiate Mathematical Modeling Contest, Honorable Mention 2024.4
The Fifteenth National Student Mathematics Competition. Provincial Third Prize in Non-Math Class A 2024.4
2024 Jilin University Exchange Program to National University of Singapore, Outstanding Participants 2024.8

RESEARCH

《HRGD: Hyperspectral Reconstruction by Guided Diffusion》(first author) 2024.6-2024.12

- **Issue elaboration:**It aims to solve the problems of smooth granularity of physical image representation and noisy physical and background junction in the process of reconstructing hyperspectral from RGB images.
- **Practical contributions:**For the first time, we propose a diffusion generation model completed by ControlNet-guided WGAN pre-training. By adopting an ingenious staged training strategy, the contradiction between the spectral clarity and spectral reproduction of traditional end-to-end reconstruction networks cannot be taken into account, and superior results are obtained on the NTIRE 2022 Spectral Reconstruction Challenge test set.

Translated with www.DeepL.com/Translator (free version)

- **Open source code:**Submitted as first author to the CCF-B district conference ICME,current status is in progress.

Link to anonymous library of thesis code: <https://anonymous.4open.science/r/HRGD-5722>

《Diffusion model-based hyperspectral reconstruction of compressed aperture coding》(First person in charge) 2024.3-now

- **Description of the problem :** It aims to solve the problem that CASSI system is unable to efficiently “upscaled reconstruction” and restore hyperspectral images due to the underdetermined nature.
- **Experimental Innovation :** The parameter sharing mechanism based on Shared Decoder coordinates the contradiction between accuracy and timeliness when different spectral channels are generated one by one.
- **Current Stage :** Participated in the “Innovation and Entrepreneurship Training Program for Undergraduates” of Jilin University in 2024 as a responsible person, got the project at the provincial level.

BASIC SKILL

- **Reproduction :** Replication of generative modeling classic papers: VAE , VQVAE , VQGAN , LDM , StableSR and so on, and replication of top conference excellent papers: MST++ (CVPR 2022) , ControlNet (ICCV 2023) and so on. The excellent code collection and reproduction traces are organized in GitHub personal repository: <https://github.com/NARUTO-2024/Generative-model>
- **Development frameworks and programming languages :** Proficient in PyTorch deep learning development framework, proficient in C , C++ , Python, Java , MATLAB programming languages.