Bing He

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Education

Shanghai Jiao Tong University   **Shanghai, CN**
Ph.D. in Information and Communication Engineering   *09/2023–06/2028(expected)*
Research focus: 3D scene reconstruction, responsible for code implementation and analysis

Shanghai Jiao Tong University   **Shanghai, CN**
Bachelor of Engineering in Information Engineering   *09/2019–06/2023*

Projects

Feedforward Scene reconstruction   **11/2024–now**
Supervisor: Prof. Li Song
○ Explored 2D Gaussian Splatting for feedforward 3D scene reconstruction.
○ Applied physical constraint to generative model, demonstrate the efficiency and accuracy.

Dynamic 3D Scene reconstruction   **11/2023–12/2025**
Supervisor: Prof. Li Song
○ Explored 3D Gaussian Splatting for dynamic 3D scene reconstruction.
○ Applied physical constraint to overfitting task, demonstrate the efficiency and accuracy.

Final Year Project: Video Compression   **10/2022–06/2023**
Supervisor: Prof. Li Song
○ Explored implicit neural representations(NeRV-based method) to encode video sequences, including landscape and anime content.
○ Developed solution for multiview video compression and achieved comparable results to traditional methods(TMIV).

Publication

○ **He, Bing**, Jingnan Gao, Yunuo Chen, Ning Cao, Gang Chen, Zhengxue Cheng, Li Song, Wenjun Zhang. "SurfSplat: Conquering Feedforward 2D Gaussian Splatting with Surface Continuity Priors" In The Fourteenth International Conference on Learning Representations.(ICLR 2026)

○ Chen, Yunuo, Zezheng Lyu, **Bing He**, Ning Cao, Gang Chen, Guo Lu, and Wenjun Zhang. "Knowledge Distillation for Learned Image Compression." In Proceedings of the IEEE/CVF International Conference on Computer Vision, pp. 4996-5006. 2025. (ICCV 2025, oral)

○ **He, Bing**, Yunuo Chen, Guo Lu, Qi Wang, Qunshan Gu, Rong Xie, Li Song, and Wenjun Zhang. "H3D-DGS: Exploring Heterogeneous 3D Motion Representation for Deformable 3D Gaussian Splatting." In The Thirty-ninth Annual Conference on Neural Information Processing Systems.(NeurIPS 2025)

○ Zhu, Chen, Guo Lu, **Bing He**, Rong Xie, and Li Song. "Implicit-explicit integrated representations for multi-view video compression." IEEE Transactions on Image Processing (TIP 2025).

Skills

Computer Skills: Python, Cython, MATLAB, and C++

Language Abilities: Chinese (Mandarin) - Native fluency, English - IELTS 7.0

Hobbies and Interests

Watching Movies: I enjoy films with strong storytelling and emotional depth. One of my favorites is *La La Land*, which inspires me with its beautiful love story.

Travel: I enjoy traveling because it allows me to see diverse landscapes and experience different cultures. It helps refresh my mind and broaden my perspective.