

EDUCATION

University of Illinois Urbana-Champaign (UIUC)

M.S. in Computer Science (Research-Oriented, Thesis-Based)

GPA: 4.0/4.0

Illinois, U.S.

Aug. 2022 – May 2024 (expected)

Peking University (PKU)

B.S. in Computer Science

Beijing, China

Aug. 2018 – June 2022

RESEARCH EXPERIENCE

University of Illinois Urbana-Champaign (UIUC)

Research Intern Guided by Prof. Yu-Xiong Wang

– Working on scene understanding, mainly on bridging generative and discriminative learning

Illinois, U.S.

July 2021 – Present

MIT-IBM Watson AI Lab

Visiting Student Researcher Guided by Prof. Chuang Gan

– Working on 3D reasoning, embodied AI and large language models (LLM)

Massachusetts, U.S.

Apr. 2023 – Oct. 2023

Peking University (PKU)

Research Intern Guided by Prof. Jiaying Liu

– Working on computational photography and human motion topics

Beijing, China

Oct. 2020 – July 2022

PUBLICATIONS/MANUSCRIPTS

1. **Shuhong Zheng**, Zhipeng Bao, Ruoyu Zhao, Martial Hebert, and Yu-Xiong Wang. Bridging Generative and Discriminative Learning with Diffusion Models. In Submission. Submitted to *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2024.
2. **Shuhong Zheng***, Zhipeng Bao*, Martial Hebert, and Yu-Xiong Wang. Multi-task View Synthesis with Neural Radiance Fields. *IEEE/CVF International Conference on Computer Vision (ICCV)*, 2023.
Presented at the workshop on Generative Models for Computer Vision. *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.
3. Yining Hong, Haoyu Zhen, Peihao Chen, **Shuhong Zheng**, Yilun Du, Zhenfang Chen, and Chuang Gan. 3D-LLM: Injecting the 3D World into Large Language Models. *Conference on Neural Information Processing Systems (NeurIPS)*, 2023. (**Spotlight, Top 3.6%**)
4. Mingtong Zhang*, **Shuhong Zheng***, Zhipeng Bao, Martial Hebert, and Yu-Xiong Wang. Beyond RGB: Scene-Property Synthesis with Neural Radiance Fields. *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2023. (**First-Round Acceptance**)
Presented at workshop on AI for Creative Video Editing and Understanding. *European Conference on Computer Vision (ECCV)*, 2022.
Presented at *18th Coordinated Science Laboratory Student Conference (CSLSC)*, Robotics Session, 2023. (**4 out of >40 submissions in the Robotics Session**)
5. Haofeng Huang, **Shuhong Zheng**, Wenhan Yang, Ling-Yu Duan, and Jiaying Liu. Seeing in the Dark with Ambient Guidance. In Submission. Submitted to *International Journal of Computer Vision (IJCV)*.

COMPETITIONS

- **Winner** of the Grand Challenge on *IEEE International Workshop on Multimedia Signal Processing (MMSP)*, 2021 **First Place** on both IR (Image Restoration) track and IE (Image Editing) track, and the **Final Winner** of the *MMSP 2021 Grand Challenge*.

TALKS

- **Student Speaker** at the *18th Coordinated Science Laboratory Student Conference (CSLSC)* Feb. 2023

PATENTS

- A Low-light Enhancement Method with Long-exposure Compensation. Jiaying Liu, Haowei Kuang, **Shuhong Zheng**, Haofeng Huang, Zongming Guo.
PCT (Patent Cooperation Treaty) Application Number: PCT/CN2022/131018.

TEACHING

- **Teaching Assistant** CS 543 - Computer Vision, UIUC Fall 2023
- **Teaching Assistant** CS 445 - Computational Photography, UIUC Spring 2023
- **Teaching Assistant** CS 361 - Probability and Statistics for Computer Science, UIUC Fall 2022

STANDARDIZED TESTS

- **TOEFL iBT** Mar. 2021
106 (Reading 28, Listening 29, Speaking 24, Writing 25)
- **GRE** Oct. 2020
331 + 3.5 (Verbal 161, Quantitative 170, Analytical Writing 3.5)

SCHOLARSHIPS AND AWARDS

- Conference Presentation Award, UIUC 2023
- Excellent Graduate, Peking University 2022
- Merit Student, Peking University 2021
- Peking University Scholarship (Third-Class), Peking University 2021
- Academic Excellence Award, Peking University 2020
- Academic Excellence Award, Peking University 2019

PROGRAMMING SKILLS

- **Programming Languages:** Python, C/C++, MATLAB, Verilog HDL
- **Machine Learning Frameworks:** PyTorch, TensorFlow, Keras

ACADEMIC SERVICES

- **Reviewer:** CVPR 2024, ICLR 2024, NeurIPS 2023, CVPR 2023, ICCV 2023
- **Organizing Committee:** Session Co-chair of the Machine Learning and Signal Processing session in the *19th Coordinated Science Laboratory Student Conference (CSLSC)*, 2024