Hengyu Lian

Chapel Hill, North Carolina

lianhy0@cs.unc.edu https://lianhy000.github.io 201 S Columbia St, Chapel Hill, NC 27599

Research Interests

- **Computational optics:** including imaging, photography, display (holography), and optical neural network

Education

- **University of North Carolina at Chapel Hill** — **Chapel Hill, NC**
  Doctor of Philosophy — *August 2024 – May 2029 (expected)*
  Major: Computer Science
  Advisor: ***Prof. Praneeth Chakravarthula***
- **Shanghai Jiao Tong University** — **Shanghai, China**
  Master of Science and Engineering — *September 2021 – June 2024*
  Major: Electronic and Information Engineering
  Advisor: ***Prof. Yuan Qu and Prof. Jiamiao Yang***
- **Tianjin University** — **Tianjin, China**
  Bachelor of Engineering — *September 2017 – July 2021*
  Major: Electrical Engineering
  Advisor: ***Prof. Min Lai***

Publications

- Yuan Qu*, **Hengyu Lian***, Chunxu Ding, et al., "High frame-rate reconfigurable diffractive neural network based on superpixels", Optics Letters, 2023, 48(19):5025-5028.
- Yuan Qu*, **Hengyu Lian***, Rongjun Shao, et al., "Time series analysis for financial indices using optical reservoir computing", Optical Engineering, 2024, 63(5): 054108-054108.
- Huazhen Liu, Rongjun Shao, Yuan Qu, Chunxu Ding, **Hengyu Lian**, et al. "High-accuracy phase unwrapping based on binarized wrap count", Optics Express, 2024, 32, 44605-44623.
- Huaizhi Qu, Yujie Wang, Ruichen Zhang, **Hengyu Lian**, et al., "HoloZip: High Hologram Compression via Latent-of-Latent Coding." In 2025 IEEE International Conference on Computational Photography (ICCP), pp. 1-10. IEEE, 2025.

Skills and Awards

- **Skills:** Python, MATLAB, PyTorch, SolidWorks, Optical Experimental Skills
- **Awards:**
  - Guo Xie Birong Scholarship rewarded by Shanghai Jiao Tong University, 10/2023 (Rank: 1/62)
  - The 1st Scholarship rewarded by Shanghai Jiao Tong University, 11/2023, 11/2022 (top30

Work Experience

- **Teaching Assistant:** — *August 2025 – Present*
  Course: Americans with Disabilities Act (ADA)
  Advisor: Prof. Brent Munsell
- **Teaching Assistant:** — *August 2024 – May 2025*
  Course: COMP 590-059 Programming Methods, Models, Languages and Analysis
  Advisor: Prof. David Stotts