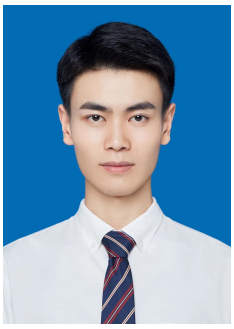
Dai Jun

Zhejiang University, Hangzhou, Zhejiang Province, China

Portfolio · GitHub

Mail: jundai@zju.edu.cn

Mobile: 86-17612289359



EDUCATION

- **Zhejiang University** **Aug.2021 - Jun.2024**
  Master of Engineering, Optical Engineering
  GPA: 3.88/4.0
  Ranking in Graduate Exam: 1/2k+

- **Tianjin University** **Aug.2017 - Jun.2021**
  Bachelor of Opto-Electronics Information Science and Engineering
  GPA: 3.76/4.0 (WES), Rank: 24/94 (10/94, first three years)
  Physics Optics (91), Advanced Mathematics (96), Linear Algebra and Application (92), Fundamental of Optoelectronics (94), Technology of Optoelectronics Sensor Application (94.6)

RESEARCH INTERESTS

- 3D Computer Vision
- Computational Imaging/Photography/Optics
- Physical-based Computer Vision

RESEARCH EXPERIENCE

- **SAIL, Shanghai AI Laboratory** **Oct.2023 – Present**
  Research Intern
  Supervised by Prof. Tianfan Xue and Prof. Jinwei Gu
  Using end-to-end optimization to combine both optics and vision algorithms and to design more robust deep optics for real-world use, achieved >1dB improvement in deep optics de-blurring.

- **College of Information Science & Electronic Engineering, ZJU** **Jul.2023 – Dec.2023**
  Research Intern
  Supervised by Prof. Yiyi Liao
  Worked on designing new algorithms for 3D reconstruction or generation of objects and scenes, especially strange cars. Improve the current autonomous driving simulation platform to make it be more in line with realistic roads and scenarios.

- **Advanced Computing and Storage Laboratory, Huawei Company** **Apr.2023 – Jul.2023**
  Research Intern
  Worked with Dr. Chong Li
  Design a new paradigm of optical convolution computation and implemented a demo of optical neural network finishing image classification tasks.

- **Integrated Opto-Electronics Laboratory, TJU** **Dec.2020 – May.2021**
  Research Intern
  Supervised by Prof. Delong Zhang
  Worked on the simulation part of Design of Erbium-doped Lithium Niobate Photonic Wire Amplifier

PUBLICATIONS

- Fan, L., Long, X., Dai, J., Li, C., Dong, X., & He, J. J. (2023). Optical–electronic hybrid Fourier convolutional neural network based on super-pixel complex-valued modulation. Applied Optics, 62(5), 1337-1344.
- Dai, Jun, et al. "On-chip 4F-system based on concave mirrors for optical neural networks." Holography, Diffractive Optics, and Applications XIII. Vol. 12768. SPIE, 2023.
- Cheng, J., Li, C., Dai, J., Chu, Y., Niu, X., Dong, X., He, J. J. (2024). Direct Optical Convolution Computing Based on Arrayed Waveguide Grating Router. Laser Photonics Reviews, 2301221. *Laser & Photonics Reviews (IF=11.0)*

SKILLS

- **Programming Languages**
  Python, Java, Matlab, C++
- **Technical**
  PyTorch, OpenCV, OpenGL, Git
- **Languages**
  Chinese (native)
  English (Fluent, IELTS: Listening:8.5-Reading:8.5-Writing:6.0-Speaking:5.5)

HONORS AND AWARDS

- **First Prize in the Chinese Mathematics Competition.**
- Second Prize in Tianjin University Mathematics Competition.
- Mathematical Contest in Modeling of 2020, Honorable Mention.
- **Third-class Scholarship in Tianjin University. (2018, 2019)**
- **Scholarship for academic achievement in Zhejiang University.(2022-2023)**