

EDUCATION

Sichuan University

B.E. of Software Engineering

2017.09-2021.06

- GPA: 3.74/4

Sichuan University

Ph.D. of Software Engineering

since 2021.09

- Advisor: Prof. [Jianwei Zhang](#)

RESEARCH INTERESTS

- Three-dimensional Topography; Complex Surface Characterization; Computational Imaging

PUBLICATIONS

- **Z. He**, P. Zhou, J. Zhu, and J. Zhang, "Improved shape-from-focus reconstruction for high dynamic range freedom surface," Optics and Lasers in Engineering, vol. 170, p. 107784, 2023.
- J. Zhu, C. Zhu, P. Zhou, **Z. He** and D. You, "An Optimizing Diffusion Kernel-Based Binary Encoding Strategy With Genetic Algorithm for Fringe Projection Profilometry," in IEEE Transactions on Instrumentation and Measurement, vol. 71, pp. 1-8, 2022, Art no. 7003708, doi: 10.1109/TIM.2022.3168900.

EXPERIENCES AND AWARDS

Research Experiences

- Majoring in software engineering, proficient in programming languages. Research focus is on multimedia technology, with studies in imaging principles and techniques, **digital image processing**, and **computer graphics** 2017-2019
- Participated in the **Internet of Things(IoT) and AI** Summer School at Ulster University (UK) and studied topics including **machine learning**, **neural networks**, and IoT devices 2019.08
- Utilized **deep learning** to perform feature learning and processing on **digital images**, digital audio, and video files. Implemented applications such as infant speech demand analysis, sleep posture detection, and AI-based automated grading 2020
- **Conducted research on three dimensional-measurement, including techniques like Fringe Projection Profilometry (FPP) and Shape from Focus(SFF); Explored measurement methods for intricate microstructures with high-dynamic surface topography..** 2021-2023

Competitions

- **National Third Prize** of the 13th National Student Software Innovation Competition, 2020.06
- **National Second Prize** of the 11th China Student Service Outsourcing Competition, 2020.08
- **National Third Prize** of 2020 WeChat Small Program Application Development Competition, 2020.08
- **National Third Prize** and **Huawei Special Prize** of the "Huawei Cup" Third China Graduate Student Artificial Intelligence Innovation Competition [General Industrial Defect Detection Solution], 2021.12.

Awards

- Outstanding Students of Sichuan University, 2018.11
- Outstanding Graduates of Sichuan Province, 2021.04

Teaching

- Teaching Assistant: Virtual System (311290010), Sichuan University, University Immersion Program 2021

SKILLS

Programming

- (commonly used) Matlab, Python, Java, C;
- (others) C++, JavaScript, Html/CSS