



# Hongsheng Qin

Light field camera, defect detection

College of Instrument Science and Engineering

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GitHub

Homepage

## SUMMARY

Hongsheng Qin, 1999, born in Hebei Province, China. Currently a 3rd year Ph.D. student at Harbin Institute of Technology (HIT), advised by Prof. Zhengang Lu. Research interests is computational imaging and defect detection.

## EDUCATION

Degree	Institute	Board / University	Rank/Percentage	Year
Ph.D.	Harbin Institute of Technology	HIT	89	2021—
Bachelor	North China Electric Power University, Baoding	NCEPU	1/102	2017-2021

## RESEARCH INTERESTS

- **Computational imaging**

*Microscopic system, Light field imaging, Light field camera, Compressive sensing*

- **Image processing**

*Defect detection, Deep learning, RPCA, Image denoising, 3D image reconstruction, Image super-resolution processing*

## JOURNAL PUBLICATIONS

- **1: H. Qin**, M. Sun, Z. Lu, J. Tan. Metallic Mesh Defect Detection Based on Low-Rank Decomposition via Schatten Capped p Norm. IEEE Trans. Instrum. Meas., 2024. (JCR zone 1)
- **2: Z. Lu, H. Qin**, J. Li, M. Sun, J. Tan. Long working distance portable smartphone microscopy for metallic mesh defect detection. arXiv, 2024. (Submit to Measurement)

## SCIENTIFIC RESEARCH ACHIEVEMENTS

- **1. Patents:** Publish 4 Chinese invention patents.
- **2. Project:** Application for the Innovation Fund of Industry University Research in China - New Generation Information Technology (Ranked 1st in Fame)
- **3. Academic competition:** Received 1 national level competition honor and 11 provincial and ministerial level competition honors

## AWARDS AND HONORS

- **During Ph.D.:** Three Good Students in Heilongjiang Province, Guanyu Outstanding Doctoral Scholarship, Excellent Graduate International Exchange Program (German Federal Institute of Physical Technology, PTB), Excellent Science Popularization Ambassador of HIT, Excellent student cadres of HIT, Excellent student of HIT, Excellent Youth League Cadres of HIT, Outstanding Talent Development Course of HIT.
- **During Bachelor:** China National Scholarship, outstanding graduates of Hebei Province, top ten self reliant students of NCEPU, national undergraduate innovation and entrepreneurship project (excellent) of NCEPU, outstanding volunteers in the World Robot Competition, Stone Society Scholarship of NCEPU, electric power scholarship of NCEPU, the 96th Hot Power Scholarship of NCEPU, outstanding league members of NCEPU, innovative and entrepreneurial exemplary individual of NCEPU, volunteer service exemplary individual of NCEPU.

## SKILLS

- **Programming:** Matlab, Python, Pytorch, C.
- **Computer design software:** Adobe Illustrator, Photoshop, Solidworks, PPT, 3ds Max.
- **Computer simulation software** FDTD, ZEMAX, CST, HFSS

## ACADEMIC SERVICES

- **Reviewers for**, \*\*\*