Post Doctoral Researcher in Super-Resolution Imaging
Stevens Institute of Technology

Job Title Post Doctoral Researcher in Super-Resolution Imaging
Department Physics Department
Institution Stevens Institute of Technology
Hoboken, New Jersey

Date Posted Sep. 25, 2025

Application Deadline Open until filled
Position Start Date Available immediately

Job Categories Post-Doc

Academic Field(s) Physics - Atomic/Molecular/Optical/Plasma
Physics - General

Job Website https://stevens.wd5.myworkdayjobs.com/External/job/Hoboken-NJ---Main-Campus/Post-Doctoral-Researcher-in-Super-Resolution-Imaging_RQ29597

Apply By Email

Job Description

We are seeking a highly motivated researcher to join our team for conducting cutting-edge theoretical and experimental research on super-resolution imaging for two- and three-point sources. The candidate will also explore the enhancement of super-resolution techniques using machine learning methods. This position offers the opportunity to collaborate with a dynamic team of researchers and contribute to advancements in imaging technologies.

Responsibilities:

Theoretical and Experimental Research:

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- Design and execute theoretical models, collaborate on experimental setups and measurements, for super-resolution imaging of two- and three-point sources.
- Analyze and interpret experimental data to validate theoretical predictions.
- Develop innovative methods to push the boundaries of super-resolution imaging.

Machine Learning Integration:

- Investigate and implement machine learning algorithms to enhance super-resolution imaging techniques.
- Collaborate with machine learning experts to integrate advanced computational methods into experimental workflows.

Technical Proficiency:

- Utilize LaTeX for the preparation of technical documents, research papers, and presentations.
- Employ Python and Matlab for data analysis, simulation, and algorithm development.
- Use PowerPoint for creating engaging presentations.

Dissemination of Research:

- Prepare and submit research findings to high-impact conferences and peer-reviewed journals.
- Present research outcomes at national and international conferences, workshops, and

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Stevens Institute of Technology

seminars.

Qualifications

- Doctoral degree in Quantum Physics, Optics, or related fields.
- Strong research background in quantum physics.
- Experience with optical imaging.
- Experience with machine learning techniques.
- Proficiency in LaTeX, Python, Matlab, Microsoft Word, and PowerPoint.
- Excellent written and verbal communication skills.
- Ability to work collaboratively in a multidisciplinary team environment.

Application Process

Interested candidates should submit the following materials:

- A detailed CV highlighting relevant experience and publications.
- A cover letter describing your research interests and how they align with this position.
- Application Deadline:November 15th 2025.

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For detailed information, please contact Prof. Xiaofeng Qian at xqian6@stevens.edu

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

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