Rohit R Mangalwedhekar
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Birthplace: Bengaluru, Karnataka, India
Birthdate: 13 January 1998

Research experience

- PhD student at Laurent Cognet Lab, LP2N, University of Bordeaux (Oct 2023-present)
- Invited speaker at International Symposium on Micro to Nanotechnologies for Healthcare, Manipal, December 2024
- First author on *Achieving nanoscale precision using neuromorphic localization microscopy, Nature Nanotechnology, Jan 2023*
- *Zeeshan Khan Memorial Award for Excellence in Light Microscopy 2023*, October 2023
- Mentored Jojo Jacob for his master's thesis titled *Particle tracking and image analysis of microscopic particles using deep learning* (June-Nov 2023)
- Presented a talk titled *Neuromorphic localization microscopy for cell biology* at BRICS Workshop for Biophotonics 2023
- Project associate and student, Nano-org Lab, CNS, IISc with Dr. Deepak Nair (Oct 2019-Sept 2023)

Education

- M. Sc. Photonics, Department of Atomic and Molecular Physics, Manipal Academy of Higer Education, 2023 (CGPA:8.75)
- Bachelor of Technology in Electrical and Electronics Engineering, PES University, Bengaluru, 2020 (CGPA:8.24)

Skills

- Microscopy setups: Neuromorphic microscopy with event-based cameras, setup and alignment of SMLM setups, 3D microscopy using Double Helix Point Spread Function, TIRF microscopy, fluorescence imaging of ICC-stained neuronal cultures, 3D Short wave infrared microscopy
- Image analysis and Single particle tracking: Application and optimization of CNNs for SPT, quantification of development and branching of neurons, trajectory linking and analysis of trajectories, Diffusion and statistical analysis of SPT data, Image reconstruction from neuromorphic events
- Wet lab Skills: Cell culturing, miniprep of plasmid DNA, PCR, Gel Electrophoresis, Nanophotospectrometry