Tanmay Pandey

⚲ Google Scholar   ✉ Email   in LinkedIn   ⌂ Github   🐦 Twitter

Short Biography

I am Tanmay Pandey, a fourth year Biology majors, studying in **Indian Institute of Science Education and Research, Mohali**, India. I am interested in Membrane Biophysics, Synthetic Biology, Neuromorphic Computation, Polymer Biophysics, Lipid Membranes, Self-Assembly, Drug Transport, NeuroBioPhysics, Experimental and Computational Biophysics and Cell Signalling Biophysics.

Publications

Experimentally Determined Shapes of Plasma Membrane Vesicles, Phosphatidylcholine (PC), and PC-Cholesterol Vesicles: Vesicles Deflation Analysis Using Confocal Microscopy   June 2025
Journal of Physical Chemistry B
Harshmeet Kaur, Rajni Kudawla, **_Tanmay Pandey_**, Tripta Bhatia
DOI: 10.1021/acs.jpcb.4c07431 ↗

Shape analysis of Biomimetic and Plasma Membrane Vesicles   January 2025
ChemSystemsChem
Rajni Kudawla, Harshmeet Kaur, **_Tanmay Pandey_**, Tripta Bhatia
DOI: 10.1002/syst.202400052 ↗

Education

BS-MS Indian Institute of Science Education and Research, Mohali, India   October 2022 July 2027
- Biology Majors

Projects

DNA-based neuromorphic Computation   Remote
Bio-inspired computation lab, *University of Kiel*   March 2024 - Ongoing
Supervisor: Prof. Dr. Jan Steinkuelher

Shape analysis of biomimetic and plasma membrane vesicles   IISER, Mohali
Soft matter Biophysics Lab, *IISER Mohali*   June 2023 - March 2025
Supervisor: Dr. Tripta Bhatia

Confocal Microscopy Image Analysis   IISER, Mohali
Soft matter Biophysics Lab, *IISER Mohali*   April 2023 - December 2023
Supervisor: Dr. Tripta Bhatia

Courses

Lipid Membranes: From Cells to Synthetic Biology,   Global Inititative of
by *Dr. Tripta Bhatia* and *Dr. Thomas G. Pomorski*.   Academic Networks

Skills

Programming Languages: Python, Javascript, Matlab

Laboratory Skills: GUV preparation, Confocal microscopy, Phase contrast microscopy, Image analysis using OpenCV and ImageJ

Online Courses

Supervised Machine Learning: Regression and Classification by **DeepLearning.AI**.
Certificate 🔗.   Coursera

R Programming Language by **Johns Hopkins University**.
Certificate 🔗.   Coursera

Programming for Everybody (Getting started with Python) by **University of Michigan**.
Certificate 🔗.   Coursera