

## EDUCATION

<b>Ph.D.</b> , Indian Institute of Technology Bombay, GPA: 8.80/10.00	July 2022–
<b>Bachelor of Technology</b> , Vishwakarma Institute of Information Technology, GPA: 9.29/10.00	June 2022
<b>Higher Secondary Certificate</b> , Jai Hind College, Percentage: 80.15/100	July 2018
<b>Secondary School Certificate</b> , UES Uran, Percentage: 87.20/100	July 2016

## BACHELOR'S THESIS

**Extraction of Refractive Index from Optically Thin Samples** (At TIFR Mumbai) Jan 2022 — June 2022

- Responsible to design an optimization algorithm to predict the refractive index of unknown materials using Terahertz Time Domain Spectroscopy.
- Implemented multiple optimization algorithms such as Dual Annealing, SHGO, Newton Raphson, etc
- Provided a full-fledged Python library that can be used for educational as well as research purposes

## IN REVIEW

- Gharat, S.**, Borthakur, A. and Bhatta G. Estimation of redshift and associated uncertainty of Fermi/LAT extra-galactic sources with Deep Learning
- Kumar, A. and **Gharat, S.** Star Classification: A Deep Learning Approach for Identifying Binary and Exoplanet Stars

## PUBLICATIONS

- Gharat, S.**, Bose, B., Borthakur, A. and Mazumder R., 2022. An Image Processing approach to identify solar plages observed at 393.37 nm by the Kodaikanal Solar Observatory. RAS Techniques and Instruments, 2(1), pp.393-397
- Mistry, P., Pathak, K., Prasad, A., Lekkas, G., Bhattarai, S., **Gharat, S.**, Maity, M., Kumar, D., Collins, K.A., Schwarz, R.P., Mann, C.R., et. al 2023. VaTEST. II. Statistical Validation of 11 TESS-detected Exoplanets Orbiting K-type Stars. The Astronomical Journal, 166(1), p.9.
- Pininti, V.R., Bhatta, G., Paul, S., Kumar, A., Rajgor, A., Barnwal, R. and **Gharat, S.**, 2023. Exploring short-term optical variability of blazars using TESS. Monthly Notices of the Royal Astronomical Society, 518(1), pp.1459-1471.
- Gharat, S.** and Dandawate, Y., 2022. Galaxy classification: a deep learning approach for classifying Sloan Digital Sky Survey images. Monthly Notices of the Royal Astronomical Society, 511(4), pp.5120-5124.
- Kulkarni, J.S., Cengiz, K. and **Gharat, S.**, 2021, March. Compact C-slot microstrip-fed planar antenna for wireless devices. In 2021 International Conference on Emerging Smart Computing and Informatics (ESCI) pp. 651-654. IEEE. .

## OTHER DETAILS

- Exams Qualified
  - JAM 2022
  - GATE 2022
- PhD conversion rate (100%)  
Received offers from
  - Centre for Machine Intelligence and Data Science, IIT Bombay
  - Yardi School of AI, IIT Delhi
  - Department of Space Science and Astronomy, IIT Kanpur
  - Department of Computer Science and Engineering, IIT Gandhinagar
- Peer Reviewer
  - Frontiers in Astronomy and Space Sciences
  - Journal of Astronomical Instrumentation
  - Classical and Quantum Gravity