

Akriti Kumari

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ABOUT ME

A mathematician in the making, my interests also include animal behaviour, physics and data science. I enjoy integrating concepts from these fields into mathematics. I strive to deepen my expertise in computational and applied mathematics with a rigorous approach. I am particularly interested in scientific machine learning and scientific computing, yet being open to other related domains.

EDUCATION

Integrated Masters in Mathematics (Applied) 2022 - Present
Indian Institute of Science, Education and Research, Thiruvananthapuram, India

- ✓ CGPA: 7.61/10
- ✓ *Related coursework:* Mathematical Modeling, Numerical analysis, Scientific Computing, Machine Learning

All India Senior Secondary School Examination (12th) 2021
Jamshedpur Public School, Jamshedpur, India

- ✓ GPA: 9.10/10
- ✓ *Related coursework:* Computer Science (Python and SQL), Mathematics, Physics

All India Secondary School Examination (10th) 2019
Jamshedpur Public School, Jamshedpur, India

- ✓ GPA: 9.44/10

PROJECTS AND EXPERIENCE

Behavioural Responses on Indian Free-Ranging dogs to Sour and Aversive Stimuli Jun 2024 – Aug 2024

Kolkata, India

- ✓ Implemented statistical and machine learning models on experimental data to find behavioral patterns in stray dogs (ANOVA, Chi square test, GLM).
- ✓ Personal observation: Intrinsic animal behaviour can be the best inspiration to develop new AI models
- ✓ Conducted on - field experiments and learned how ecology experiments are conducted

Gravitational lensing October 2023
Thiruvananthapuram, India

- ✓ Demonstrated gravitational lensing through refraction of light in glass and water
- ✓ Poster presentation of the model

SKILLS

Computational

- **MATLAB:**
- ✓ Implemented numeric methods of computation using MATLAB
- **Python:**
- ✓ Performed exploratory data analysis
- ✓ Implemented Logistic regression, Gradient ascend, Decision tree, Random forest, Naive Bayes, KNN, K means clustering algorithms

- ✓ Implemented numeric and scientific methods of computation.
- **HTML and CSS:**
- ✓ Developed basic websites

Typesetting

- **L^AT_EX:**
- ✓ Experience with overleaf.

Languages

- **English:** Proficient
- **Hindi:** Mother Tongue

Other skills

- ✓ Leadership: Served as the Secretary(DAC2) of Students Cooperative Mess (IISER TVM)
- ✓ Communication and Social involvement: Elected as the students representative for Science and Technology Council (IISER TVM)
- ✓ Arts: Writer and Arts head for Ether (the literature magazine of IISER TVM)

CERTIFICATIONS & AWARDS

- ✓ IAS SRFP (2024) - Worked with Dr. Anindita Bhadra at The Dog Lab, IISER Kolkata
- ✓ National Children Science Congress (2018) - Qualified for the State level competition as the Group Leader