RAM KRIPAL SINGH YADAV

4 Year BS
Major in **Earth Sciences**
Indian Institute of Science Education and Research Kolkata
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EDUCATION

•**Indian Institute of Science Education and Research - Kolkata, W.B., India** *2021-2025*
Bachelor of Science | Earth Science Major

•**Sunbeam School Varuna, Varanasi, U.P., India** *2018-2020*
CBSE Senior School coursework 10+2

•**R.S. Convent Sainik School, Varanasi, U.P., India** *till 2018*
CBSE High School coursework till class 10

EXPERIENCES

•**The Effect of Climate Change on Different Species Habitats under Different SSPs** *January 2025*
Spatial Data Lab, Harvard University

– Built a KNIME workflow to compute multicollinearity between environmental variables.
– Integrated MaxEnt into KNIME, a powerful species distribution modeling tool for predicting future species distributions under climate change scenarios.
– Presented this work at The 2025 Young Scholar Symposium on Spatiotemporal Data Science, organized by the Spatial Data Lab, Harvard University
– Mentor: Dr. Nan Jia

•**Internship in Spatial Data Lab** *June 2024 - September 2024*
Center for Geographic Analysis, Harvard University

– Transferred telecoupling toolbox from ArcGIS to KNIME workflows for replicable research
– Mentors: Dr. Nan Jia and Dr. Nakul Gupta

•**Summer internship in Groundwater modelling using Modflow** *May 2024 - July 2024*
Indian Institute of Technology (BHU) Varanasi

– Modeled groundwater contamination across Varanasi district using MODFLOW-2005 & QGIS.
– Supervisor: Dr. Prabhat Kumar Singh Dikshit

•**Summer internship in the field of Quantum Optics** *May 2023 - July 2023*
Indian Institute of Technology Jodhpur

– Calculated the coefficient of Abel inversion, Reading Project and hands-on experience on Febry-Perot Interferometer ether and GPX-2 TDC(Time to Digital Converter)
– Supervisor: Dr. V. Narayanan

RELATED COURSEWORK

- Geomorphology and Remote Sensing
- Remote Sensing and GIS Laboratory
- Data Analysis in Python
- Programming and Data Structures in C
- Introduction to Environmental Science
- Geochemistry
- Foundations of Machine Learning and Network Analysis
- Hydrology and Geodynamics
- Seismology and Seismology Laboratory
- Information Retrieval and Web Search
- Artificial Intelligence: Search Methods For Problem-solving

RELATED ONLINE CERTIFICATION COURSEWORK

- Advanced Geomatics Engineering [Certificate]

- Machine learning specialization *(Supervised, Unsupervised, Deep Learning, Decision Tree, Reinforcement learning)* [Certificate]

- Generative AI with Large Language Models[Certificate]

- AI and Climate Change [Certificate]

- Sequences, Time Series and Prediction [Deep Learning] [Certificate]

- Core Spatial Data Analysis: R and QGIS [Certificate]

- Natural Language Processing with Classification and Vector Spaces

- Digital Twins in Industry 4.0

TECHNICAL SKILLS

- Python
- QGIS
- SAC (Seismic Analysis Code)
- R
- KNIME
- OriginLab
- Basic MATLAB
- C
- Gnuplot
- LaTeX

POSITIONS OF RESPONSIBILITY

- **Office Bearer,** IISER Kolkata Campus Radio — *Nov.2022-2023*
- **Event Organiser,** Inquibytes, Gaming event — *Oct.2022*
- **Arena management,** Core Committee, Inquivesta X (Annual Science fest of IISER-K) — *April.2023*