



Rahul Harod
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Examination	University	Institute	Year	CPI/%
Post Graduation	IIT Bombay	IIT Bombay	2021	9.52
Graduation	RGPV Bhopal	SGSITS Indore (M.P.)	2019	7.4

SCHOLASTIC ACHIEVEMENTS

- The Journal article titled **Effect of surface emissivity and retrieval algorithms on the accuracy of land surface temperature retrieved from Landsat data** is published in Remote Sensing Letters. [July 21]
- Received Acknowledgement Letter from **A. Bhargav Teja, (I.A.S.)**, for finding the Optimum Location of Ambulance stations Seethampeta Mandal.
- Achieved **97.82** percentile in **GATE 2019**, in Civil Engineering.

ACADEMIC PROJECTS

- M.Tech. dissertation- Supervisor: Prof. EswarRajasekaran, IIT BOMBAY** [Jul20-Jun21]
Google Earth Engine based tool development for LST retrieval from Landsat series of satellites using JavaScript.
 - Thermal Emissivity calculation using EVI, NDWI, NDVI, NDBI, based Threshold Method.
 - Atmospheric correction** parameter Estimation with the help of atmospheric reanalysis product (NCEP).
- Mini Project: GIS in Civil Engineering- Guide: Prof. Raaj Ramsankaran, IIT BOMBAY** [Sept19-Nov19]
Identifying the ideal number of ambulance stations and Locations in Seethampeta Mandal, Andhra Pradesh.
 - 1529 Potential Location obtained by running, service Area, and Location Allocation algorithm.
 - Proposed a network of **36 stations** locations considering by optimizing the impedance distance as 3.75km, which can cater to **390 tribal villages with 15 mins** response time.
- Mini Project: Digital Image Processing-Guide: Prof. J. Indu, IIT BOMBAY** [Sept19-Nov19]
Supervised Land cover classification using the Spectral Angle Mapper Algorithm.
 - Five bands of Landsat8 was used to classify Landcover into **5 classes**, the angle between pixel values and Training data were calculated using MATLAB, and Landcover assigned **based on the Least angle**.

RELEVANT COURSES AND SKILL SETS

- Courses:** Applied Statistics | Digital Image Processing | GIS | Remote sensing | Photogrammetry
- Software Proficiency:** Tableau, ArcGIS, QGIS, ERDAS Imagine, Google Earth Engine, SNAP, AutoCAD, STAAD Pro.
- Programming Languages:** Python | MATLAB | JavaScript | MySQL.

COURSES ON DATA SCIENCE AND MACHINE LEARNING

- Machine Learning Algorithms: Supervised Learning Tip to Tail**- AMII(university of Alberta): Coursera [7Jul20]
 - Linear Regression, Logistic Regression, K-Means classification, Decision Trees, KNN, SVM, PCA.**
 - Regression Algorithms, **Gradient Descent**, Bias and variance tradeoff, Regularizers, understanding Model Complexity, Loss for classification, Learning Curves, Cross-validation, parameter tuning.
- Introduction to Data Science in Python**- University of Michigan: Coursera [19Jul20]
 - Learned about **Data Cleaning** and Processing- handling missing values, DataFrames merging, Data grouping.
 - Date manipulation, Scales, Pivot Table, Distributions, **Hypothesis Testing(t-test).**
- Neural Networks and Deep Learning**- deeplearning.ai(prof. Andrew Ng): Coursera [29Jul20]
 - Binary Classification, Logistic Regression, vectorization, Deep NN overview, and applications.
 - Activation Functions, Forward & Backward Propagation**, Random Initialization, Deep L-layer NN, Tensor flow.

POSITION OF RESPONSIBILITY

Teaching Assistant: Department of Civil Engineering IIT Bombay

- course CE-216:** Helped and guided a group of 6 students in two batches on various surveying techniques. [Jan20]
- course CE-703(Remote Sensing Laboratory)** [Aug20-May21]
 - Assisted professors in conducting classes and preparing laboratory materials and videos.
 - Google Earth Engine** is used to carry out various mathematical operations on satellite images.

HOBBIES

- Playing Cricket, Reading Hindi Poetry, Listening Music.