RADHESHYAM ROUTH

MSc Data Science Student

@ radheshyamrouth001@gmail.com
+91 8392089070 Paschim Medinipur, West Bengal
www.linkedin.com/in/radheshyam-routh github.com/IamRouth

AREA OF INTEREST

Deep Learning, Artificial Intelligence, Large Language Model, Computer Vision, Time Series Analysis, Machine Learning.

EDUCATION

MSc Big Data Analytics (Data Science)

Ramakrishna Mission Vivekananda Educational and Research Institute

✔ SGPA(Sem- 1): 8.43/10 *(View here)* 2024 - Ongoing

BSc Mathematics Hons.

Ramakrishna Mission Vidyamandira

✔ CGPA: 8.93/10 *(View here)* 2021 - 2024

Higher Secondary (10+2) (PCMB)

Marhtala Satyeswar Institution

✔ Percentage: 95.8% *(View here)* 2019 - 2021

Secondary (10)

Panchgeria High School

✔ Percentage: 94% *(View here)* 2013 - 2019

ONGOING PROJECTS

- **Distributed Inference Using Ray** - Project under Mr. Champak Dutta
- **Visual Question Answering** - Project under Dr. Soumitra Samanta
- **Video Summarization** - Project under Br. Bhaswarachaitanya

COMPLETED PROJECTS

- **Detecting Lines and Circles in Images** - a Computer Vision Mini Project under Br. Bhaswarachaitanya (Completed, *View here*)
  [Implemented Hough Transform from scratch to detect lines and circles in images.]
- **Image Filtering and Hybrid Images** - a Computer Vision Mini Project under Br. Bhaswarachaitanya (Completed, *View here*)
  [Implemented a custom image filtering function for convolution-based processing and Created hybrid images by combining high- and low-frequency components of different images.]
- **A Comparative Study of Classification Algorithms on OrganCMNIST** - an ML Project under Br. Bhaswarachaitanya (Completed, *View here*)
  [Implemented binary and multiclass classification using Softmax Regression, SVM, Decision Trees, and Ensemble Methods.
  Analyzed model performance using accuracy, precision, recall, F1-score, and ROC curves.]
- **Comprehensive Regression Analysis on Diabetes Dataset: Insights and Predictions** - an ML Mini-Project under Br. Bhaswarachaitanya (Completed, *View here*)
  [Explored Linear, Polynomial, Ridge, Lasso, Elastic Net, and SGD Regression.
  Applied Gradient Descent methods, Normal Equation, and SVD for optimization.]

TECHNICAL STRENGTH

- **Python** ●●●●○
- **Pytorch** ●●●●○
- **PySpark** ●●●●○
- **Latex** ●●●●○
- **C** ●●●○○
- **R** ●●●○○
- **Java & Hadoop** ●●●○○

COURSEWORK

Deep Learning
Computer Vision
Survival Analysis & Time Series Analysis
PySpark, Storm, Graph Database
Machine Learning
Data Structures & Algorithms
Joy of Computing Using Python
Statistics & R
Java & Hadoop
Linear Algebra
Probability & Stochastic Process
Graph Theory

ACHIEVEMENTS

Top 2% Scorer in NPTEL Joy of Computing Using Python Course
INSPIRE Scholarship 2021 - Ongoing
Ray & Martin Scholarship 2020
NMMSE Scholarship 2017 - 2021

LANGUAGES

- **English** ●●●●●
- **Bengali** ●●●●●
- **Hindi** ●●●○○

HOBBIES

Reading Books Bicycling
Playing Table Tennis

- **A Study of Basic Algorithm Design Techniques** - B.Sc. Dissertation Work under Dr. Soumitra Kayal (Feb, 2024 - April, 2024) (*Project Report here*)

  [Explored fundamental algorithmic techniques, including Brute Force, Divide-and-Conquer, Dynamic Programming, and Greedy Methods.

  Examined graph-based algorithms like Depth-First Search (DFS), Breadth-First Search (BFS), and Prim's Algorithm.

  Investigated optimization approaches, including Maximum-Flow and Iterative Improvement techniques.]

PRESENTATIONS

- **Poisson Process** — Course: DSE-3 (P & S)
  (April 22, 2024) — *Instructor: Dr. Ratnadeep Acharya*
- **Maximum Modulus Principle** — Course: MVC 1
  (April 5, 2024) View here — *Instructor: Dr. Suvra Kanti Chakraborty*
- **Line Graph** — Course: Graph Theory 1
  (Oct 07, 2023) View here — *Instructor: Dr. Suvra Kanti Chakraborty*
- **Principal Component Analysis** — Course: Linear Algebra 3
  (Mar 03, 2023) View here — *Instructor: Dr. Suvra Kanti Chakraborty*
- **Orthogonal Projection** — Course: Linear Algebra 2
  (Dec 01, 2022) View here — *Instructor: Dr. Suvra Kanti Chakraborty*
- **Equicontinuous Families of Functions** — Course: Real Analysis 3
  (Nov 19, 2022) View here — *Instructor: Dr. Suvra Kanti Chakraborty*

SEMINARS ATTENDED

- **Some of the Key Open Problems in Computer Science** — Speaker: Dr. Anil Maheshwari, Dept. of C.S., RKMVERI
  Feb 28, 2025
- **Breaking into Capital Markets – A Technology-First Approach** — Speaker: Sri Rajdeep Mazumder, Dept. of C.S., RKMVERI
  Feb 12, 2025
- **A Graph Theory Perspective on the Quest for Dichotomy** — Speaker: Dr. Pavol Hell, Dept. of C.S., RKMVERI
  Feb 4, 2025
- **K-minimum Uniform Sampling Technique Revisited** — Speaker: Dr. Sumit Ganguly, Dept. of C.S., RKMVERI
  Nov 20, 2024
- **Industry Applications of Computer Vision** — Speaker: Dr. Swapna Agarwal, Dept. of C.S., RKMVERI
  Nov13, 2024
- **Fundamentals of Quantum Computing** — Speaker: Dr. Ritajit Majumdar, Dept. of C.S., RKMVERI
  Sep 11, 2024