# RAJARSHI SAHA

#### MSc Computer Science Student | BSc in Computer Science

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Basirhat

Portfolio

My passion is exploring emerging technologies to develop innovative solutions that address real-world challenges, improve quality of life, and positively impact communities.

#### COMPLETED PROJECTS

- Smart Contract Development on Blockchain using Time Series Forecasting
  - Creating smart contracts to automate agreements on blockchain, ensuring secure transactions.
  - Utilizing time series forecasting for trend prediction, enhancing decisionmaking and contract actions.
- Ek-Nojore: Bengali News Headline Generation using Auxiliary Information
  - Developing a system to generate Bengali headlines using NLP techniques.
  - Analyzing article content to produce concise, contextually accurate head-
- Dynamic PDF Interaction and Conversational AI Ecosystem | Flask | LLM | Llama-2 | Mistral-7B
  - Implemented NLP techniques for accurate extraction and understanding of PDF content.
  - Developed conversational models to provide relevant responses based on PDF data.
  - Enhanced chatbot performance through iterative feedback and optimiza-
- Ensemble Learning in Cardiology Prediction | Python | Machine Learning | Ensemble Techniques | Flask | Html | Streamlit
  - Developed methods for combining predictive models in cardiology.
  - Evaluated ensemble methods using key performance metrics.
  - Applied and validated ensemble models on cardiology data.
- Portfolio Development with Full Stack Implementation | HTML | CSS | JavaScript | Node.js
  - Designed a responsive portfolio frontend using HTML, CSS, and JavaScript.
  - Built backend functionalities with Node.js, including form handling and project management.
  - Optimized for compatibility across devices and browsers.
- Perspective Panorama: Dynamic Camera View with OpenGL | Python | Computer Graphics | OpenGL
  - Developed real-time camera view adjustments in a 3D environment using OpenGL.
  - Implemented dynamic view transformations and advanced graphics render-
  - Created interactive visual tools to demonstrate and control camera perspectives.

## TECHNICAL SKILLS

- Programming Languages: Python, C, Java, JavaScript
- Frontend Development: HTML, CSS, Bootstrap, React, Streamlit
- Backend Development: Flask, Node.js
- Databases: MySQL, SQL, Neo4j
- Libraries & Frameworks: NumPy, Pandas, Scikit-learn, PyTorch
- Models: Transformers, LLMs, SentenceTransformers
- Basic Knowledge: Android

### PUBLICATION

Blind image authentication using singular value decomposition with enhanced robustness by augmenting hamming code," International Journal of Computers and Applications, 2024. Available here.

#### **EDUCATION**

MSc in Computer Science

Ramakrishna Mission Vivekananda Educational and Research Institute

CGPA 7.02/10 (1st year)

BSc in Computer Science

Ramakrishna Mission Residential College Narendrapur (Autonomous)

CGPA 9.27/10

Higher Secondary (10+2) CBSE - PCMCS

Ramakrishna Mission Vidyapith Deoghar

**July 2020** 

Jharkhand, India

Percentage 91.40%

Secondary (10) WBBSE

Ramakrishna Mission Vidyalaya Narendrapur

**May 2018** 

Kolkata, India

Percentage 87.71%

## **AREA OF INTEREST**

- Web Development
- Database Management
- Transformer & LLMs

### RESPONSIBILITIES

Design Team Member

Perceptron Tech-Fest RKMVERI

**2024-2025** 

Belur, India

Member of Cultural Committee Cultural Committee, RKMRC Narendrapur

**2021-2023** 

Kolkata, India

Member of Vidyarthi Sansad

Student Representative, RKMV Narendrapur

**2015-2018** 

Kolkata, India

### **HOBBIES**

Tabla **Badminton**  Football

Cricket

### LANGUAGES

**English** Bengali Hindi