# RITANKAR JANA

## Kolkata, West Bengal, India

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#### Education

Academy of Technology 2021 – 2025

Bachelor of Technology in Computer Science (CGPA: 8.93/10)

Hooghly, West Bengal

W.W.A Cossipore English School 2018 – 2020

I.S.C (Percentage: 89.0%)

W.W.A Cossipore English School

2018

I.C.S.E (Percentage: 87.5%)

Kolkata, West Bengal

### Relevant Coursework

Data Structures and Algorithms DBMS Operating System Computer Networks OOPS Machine Learning

## **Projects**

Stokis | Python, Scikit-Learn, Transformer Code Link

 ${\bf Oct~2024-Present}$ 

- Developed an advanced stock prediction platform leveraging external data sources like **Yahoo Finance** to enhance prediction models with historical data and technical indicators.
- Collaborated on implementing a CNN-BiLSTM model, achieving an R<sup>2</sup> value of 0.95 for stock price prediction, significantly enhancing platform accuracy.
- Fine-tuned a **BERT-based model (FinBERT)** on a custom Hugging Face dataset to achieve **97.2% accuracy** for news sentiment classification.
- Developed a microservice using **FastAPI** that fetches, filters, and summarises real-time stock news using **SerpAPI**, **Playwright**, **CrewAI**, and **MongoDB**.

GadgyHub Application | React, Node.js, Express, MongoDB, Redis, TailwindCSS Code Link January 2025

- Engineered a modern e-commerce platform with advanced technologies like **Redis for caching**, **Cloudinary for image** management, and **Stripe for secure payment processing**.
- Crafted an interactive and responsive UI leveraging **React** and **TailwindCSS**, employing **Zustand** for state management while incorporating **Framer Motion** animations and **React Confetti** for celebration effect to enhance user engagement
- Designed and tested **RESTful APIs** for authentication, product management, cart operations, and payments, utilizing tools like Postman and **MongoDB Compass** for optimization.

Advanced Authentication System | Node.js, Express, MongoDB, Nodemailer Code Link

November 2024

- Built a modular authentication system featuring user signup, email verification, secure login, logout, and password reset functionality using Node.js, Express, and MongoDB. Incorporated JWT for token-based authentication, ensuring robust account management and security.
- Integrated advanced features like email notifications for verification and password resets using Nodemailer, with tokens managed securely for expiration. Designed reusable components like token generators, cookie handlers, and email templates to enable seamless integration into larger applications such as e-commerce or enterprise platforms.

TriNayan: AI-Powered Currency Detection | YOLOv8, ViT, OpenCV Code Link June - September 2024

- Pioneered an AI-powered solution using fine-tuned YOLOv8 and Vision Transformers (ViT) to assist visually impaired individuals in detecting and recognizing currency notes, achieving an accuracy of around 70%.
- Improved user engagement and autonomy by delivering real-time annotated images, increasing reliability by 75%, using tools such as OpenCV and Python

## Technical Skills and Interests

Languages: Java, Python, Javascript, BashScript Database: MySQL, Oracle, MongoDB, Redis

**OS**: Windows, Linux

ML/DL Libraries: Scikit-Learn, Pandas, Matplotlib, LangChain, NumPy

Web Frameworks: Node.js, Express, React

## Extracurricular Activities and Achievements

Participated in HaRBInger 2024- RBI Hackathon

May 2024 – Oct 2024

Talent Next Java Certification from Wipro

May 2024 - Sept 2024

Open-source Contributions in Hugging Face

2024