## Rajkishore Nandi

## Portfolio - Portfolio Link

## Indian Institute of Technology Madras



| EDUCATION   |  |          |
|---|--|----------|
| Program   | Institution                            | % / CGPA |
| MTech in Artificial Intelligence & Machine Learning | Indian Institute of Technology, Madras | 8.75     |
| BS in Data Science and<br>Applications              | Indian Institute of Technology, Madras | 9.0      |
| Class XII   | Delhi Public School, Kolkata           | 78       |
| Class X   | St James Convent School                | 91       |

Relevant Skills: Languages - Python, Java Script, Java, C, HTML, SQL

Libraries/ Framework - Pytorch, Matplotlib, Numpy, OpenAI Gym, Pandas, Pyspark, ScikitLearn, Langchain, Adk, Web - HTML, CSS, Flask, FastApi, VueJs

CloudSkills - AWS services, GCP services, MLops

Relevant Courses: MultiArm Bandits, Reinforcement Learning, Deep Learning, Machine Learning Techniques, Machine Learning Practice, AI: Search Methods for Problem Solving, Data Structures and Algorithm, Modern Application Development, Statistics-1, Statistics-2, Machine Learning Foundations, Object Oriented Programming, Computer System Design, Database Management System, Business Analytics, Data Visualisation Design, MLops

## **ACHIEVEMENTS**

- Secured 3rd position in the Data Visualization Design Project among 70 students who participated.
- Ranked among Top 15 in Cricket and Coding Hackathon for IPL matches 2023 conducted by NPTEL where more than 1000 teams participated.
- Secured 20th position in the Kaggle competition of predicting customers behavior in an E-Commerce website out of 769 participants

| PROFESSIONAL EXPERIENCE |   |  |
|-------------------------|---|--|
| Intern 1                | Data Intern , Logitech  |  |
| (Sept 2024 - Ongoing)   | Worked in building an agent that can do automatic data analysis on various Logitech Products extracting data  |  |
|                         | from different community platforms where users post reviews.  |  |
|                         | Build the pipeline that can fetch the raw data and make it ready for agents to consume for further analysis and serve the end user  |  |
|                         | • Leveraged <b>MCP</b> protocol, <b>LangGraph</b> architecture and <b>LangChain</b> framework for conversation using Open AI Api.   |  |
|                         | Used <b>AWS</b> services and <b>Pyspark</b> to automate the full pipeline and deploy the agents.  |  |
|                         | LLM Intern in a collaborative project of ENCORA Digital and IITM  |  |
| Intern 2                |   |  |
| (Oct 2023 - Jan 2024)   | Developed a web application which facilitates Coding Education featuring an integrated IDE for question solving.  |  |
|                         | Leveraged <b>Django</b> Framework, <b>REST Api</b> architecture and <b>LangChain</b> framework for conversation with  |  |
|                         | Open AI Api.  |  |
| Intern 3                | Research Intern   |  |
| (May 2023 - Aug 2023 )  |   |  |
|                         | • Executed a deep learning model to forecast end-term scores for 25,000 students, relying on quiz 1 performance as input. Harnessed the capabilities of neural networks to construct a precise regression model, enabling the anticipation of students' performance trends. |  |

| Intern 4               | Teaching Assistant - Statistics   |
|------------------------|---|
| (Feb 2023 - May 2023 ) | Conducted sessions on a daily basis, prepared animated study materials .Took problem solving sessions for academically struggling students.Created additional question sets for stronger grasp of concepts.   |
| PROJECTS               |   |
|                        | Developed an autonomous agent to do effective betting in cricket  |
| Project 1              | <ul> <li>Coded AI agents using Bandit and RL Algorithms that can employ effective betting strategies in the game of cricket.</li> <li>Given State of the match that is wickets in hand and overs left the Agent can decide what shot to play next using Q Learning.</li> <li>Implemented KL-UCB Algorithm to find out the least risk taking shot at every ball.</li> <li>The game environment and agents were coded from scratch with numpy.</li> </ul>   |
|                        | E-commerce Shoppers Behaviour Understanding - Kaggle  |
| Project 2              | <ul> <li>Conducted in-depth analysis of customer data through EDA, understanding the purchase behavior of customers seeing their behavior pattern while they visited the website.</li> <li>Employed advanced machine learning techniques to train diverse models, achieving a noteworthy 0.716 F1 score in predicting the customers purchase behavior.</li> <li>Implemented models like Logistic Regression, Random Forest Classifier, SVM model and Stacking classifier using Scikit learn library.</li> </ul>   |
|                        | Platform Analysis of Big Basket   |
| Project 3              | <ul> <li>Executed Product analysis for different categories of products along with their reviews and also analyzed the different Brands selling on the platform with Pandas and Google Sheets.</li> <li>Identified top-selling products, top performing brands, and assessed promotional impacts through statistical and graphical methods.</li> <li>Curated valuable recommendations to enhance overall sales performance of the platform strategies for Top 3 brands on the platform.</li> <li>Tools used are Numpy, Pandas, Google Sheets, Seaborn, Matplotlib, PowerBI</li> </ul> |
|                        | Bloglite Application - WebApp   |
| Project 4              | <ul> <li>Personal blog creating website</li> <li>Developed the front-end using HTML, CSS, and VueJS to ensure a seamless and visually pleasing user interface for the single-page web application.</li> <li>Implemented the Flask web framework for the backend, integrating SQLITE3 as the database to optimize data handling and processing.</li> <li>Enhanced performance and scalability by incorporating utilities like Celery and Redis, and automated monthly report delivery through Cron Jobs to users' email for improved user engagement.</li> </ul>                       |
|                        | POSITIONS OF RESPONSIBILITY   |
| POR 1                  | <ul> <li>Worked as Cultural core for the Paradox, 23 - the annual fest of IIT M BS degree.</li> <li>Responsible for planning and managing all the cultural events and coordinating among participants and cultural event heads.</li> </ul>  |
| POR 2                  | <ul> <li>Worked as Dance event head for Paradox, 22</li> <li>Managed more than 50 participants who participated in the event.</li> </ul>  |
| POR 3                  | <ul> <li>Head of the official Drama Society for the academic year 2022.</li> <li>Co - Head of the Dance society for the academic year 2021.</li> </ul>  |