Sanjan Baitalik

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Education

Institute of Engineering & Management, Kolkata   **2022 – 2026**
B.Tech in Computer Science & Engineering   *CGPA: 9.3/10*

Nava Nalanda High School, Kolkata   **April 2020 – March 2022**
Higher Secondary School   *WBCHSE: 90.1 / 100*

Nava Nalanda High School, Kolkata   **April 2008 – March 2020**
Primary School, High School   *WBBSE: 93.6 / 100*

Relevant Coursework

- Artificial Intelligence
- Cloud Computing
- Computer Networks
- Data Structures
- Database Management
- Theory of Computations
- Operating Systems
- NLP

Experience

University of Nebraska, Lincoln, USA   **June 2025 – Present**
Research Intern   *Remote (USA)*

- Contributing to active research remotely, on "Hyperspectral image analysis for plant phenotyping based on deep neural networks."

GenAI CoE, IEM   **November 2024 – Present**
Undergraduate Student Research Lead   *Kolkata, India*

- Working as Research Lead in GenAI Centre of Excellence, Institute of Engineering & Management, Kolkata.
- Responsible for guiding and managing student research work under academic prerequisites or external interests.

IEM Consultancy Services   **August 2024 – March 2025**
Project Intern at bair.ai   *Kolkata, India*

- Developed MemeMetric: Predictive Modeling of Memecoin Success

Innovation & Entrepreneurship Development Cell (CSE)   **March 2024 – August 2024**
Undergraduate Research Assistant   *Kolkata, India*

- Co-authored a research paper accepted at IEM-HEALS 2024 - Analyzed Jul 2019–Dec 2022 closing prices of 20 pharma stocks using multivariate regression, volatility metrics, and event-study methods.
- Developed TraderBot : End-to-End Paper Trading Platform

Study Abroad Program at National University of Singapore (NUS)   **July 2023 (1 week)**
Undergraduate Study Abroad Program   *Singapore*

- Studied fundamentals of "Artificial Intelligence, Internet of Things, Machine Learning & Data Analytics", lectured by faculties of National University of Singapore.

Projects

Hirely : Agentic AI System for HR Automation   **March 2025**

- Created an AI-powered recruitment automation system with autonomous agents for CV screening, candidate search, interview scheduling, and reporting.
- Utilized ChromaDB for efficient data retrieval and integrated Mistral LLM for generating real-time insights and context-aware responses, streamlining the hiring process for HR professionals.

MemeMetric : Predictive Modeling of Memecoin Success   **December 2024**

- Spearheaded end-to-end development of a Cluster-based Cryptocurrency Price-prediction Engine, architecting the algorithm, data pipeline, and automated report-generation framework to deliver actionable market insights.
- Designed and implemented NLP-driven social-media sentiment analytics, aggregating real-time data from Twitter, Telegram, and Reddit to quantify market sentiment and bolster model robustness, reducing forecast error and volatility.

Pizzamania : Agile Management Using Jira   **November 2024**

- Developed an online pizza ordering system with customization options, real-time order tracking, and secure payment processing.
- Implemented agile methodology to build a robust platform, continuously adding features such as multi-payment options, dynamic pizza customization, and seamless order updates for an enhanced user experience.

TraderBot : End-to-End Paper Trading Platform June 2024

- Developed a real-time stock trading simulation platform using Flask for backend trade logic and MongoDB for data persistence.
- Integrated Yahoo Finance API to fetch live market data, allowing users to simulate trading strategies, test portfolio management techniques, and analyze stock movements without risking actual capital.

HealthHub February 2024

- Designed and developed an e-commerce platform focused on health-related products and services, including wellness supplements, medical equipment, and personal care items.
- The platform features product management, shopping cart functionality, secure payment options, and a seamless user experience, aimed at improving health and wellness access for consumers.

MATLAB Project : Number Guessing Game November 2023

- Created an interactive number guessing game in MATLAB using App Designer.
- The game allows users to compete against a computer, providing real-time feedback on whether the guess is higher, lower, or correct. Tracks player scores, and features a dynamic interface that adapts as users continue to play, offering an engaging experience.

Technical Skills

Programming Languages: Python, C, Java, MATLAB
Database Management: Oracle, MySQL
Tools and IDE: Visual Studio Code, Jupyter Notebook, Google Colaboratory, Jira, Overleaf
GenAI Platforms: DALL-E, Gemini AI Studio, OpenAI APIs, Stable Diffusion
Cloud Platforms: AWS, Google Cloud
Soft Skills: Problem-solving, Critical thinking, Teamwork, Leadership

Leadership / Extracurricular

IEM-ICDC 2025 April 2025

Volunteering

- Volunteering for IEM-ICDC 2025, assisting with event coordination and support for the conference.

GenSpark 1.0 2025 June - August 2025

Organizer, Ideathon

- Organized the first Ideathon under GenAI CoE, IEM, promoting innovation and collaboration among participants.

Department of CSE, IEM March 2024

Volunteering

- Contributed to the NBA(National Board of Accreditation) accreditation process through volunteering efforts, supporting the team in documentation and assessment tasks.

Publications

1. **Sanjan Baitalik**, Rajashik Datta, Sanket Ghosh, Dr. Darothi Sarkar, Dr. Ayan Chaudhuri, "Machine Learning-Driven Insights For Stock Market Analysis And Trading". In International Conference on Interdisciplinary Research in Technology and Management (IRTM 2024).

2. Sanket Ghosh, **Sanjan Baitalik**, Rajashik Datta, Dr. Darothi Sarkar, "The COVID-19 Shock: An Analysis Of Impacts And Responses Of Indian Stock Market". In International Conference on Interdisciplinary Research in Technology and Management (IRTM 2024).

3. Rajashik Datta, **Sanjan Baitalik**, Sanket Ghosh, Saugata Ghosh, Dr. Swarnendu Ghosh, "Is Indian Financial Market Ready for Pandemics?". In International Conference on Advancing Science and Technologies in Health Science (IEM-HEALS 2024).