SOUPARNA PAUL

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Kolkata, India

OBJECTIVE

A Tech Enthusiast and Innovator specializing in Python development, AI/ML, and full-stack web development. Seeking to contribute to innovative projects at the intersection of real-time data analysis and robust web solutions, leveraging expertise in building impactful applications and applying machine learning to real-world problems.

EDUCATION

Narula Institute of Technology

2021 - 2025

B.Tech in Computer Science and Engineering

Kolkata, India

- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Database Management Systems, Machine Learning, Web Technologies.
- Thesis/Capstone Project: Phishing URL Detection (Awarded Best Paper).

• Madhyamgram High School

2019

Higher Secondary Education

Madhyamgram, India

• Specialized in Science Stream.

• Barasat Mahatma Gandhi Memorial High School

2017 Barasat, India

Secondary Education

Completed Secondary Education.

PROJECTS

• Individual Projects

HTML, CSS, JavaScript

2024

• Python Syllabus Website

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- Developed an interactive and comprehensive Python syllabus website to guide beginners through core concepts, from basic syntax to advanced topics like OOP and data structures.
- Features structured curriculum, interactive code examples, and a user-friendly interface for easy navigation and self-paced learning.

• BTC Probo Predictor (Mobile Friendly)

July 2025 [**○**] [□]

Python, Streamlit, Plotly, Pandas, Binance API

- Created an AI-powered mobile-optimized application providing predictions for Probo BTC events, leveraging real-time market data and technical analysis.
- Features real-time data fetching from Binance API, technical indicator analysis (RSI, EMA), sentiment analysis, an AI-powered prediction engine, interactive Plotly charts, and Telegram notifications.

• Smart AgriTech Dashboard

June 2025

Python, Streamlit, TensorFlow, Firebase, Plotly



- Developed a unified AI-powered AgriTech dashboard for real-time crop monitoring, sensor visualization, and crop advisory.
- Integrated Firebase Realtime Database for live farm sensor data, trained a TimeDistributed ANN (TDANN) for soil moisture prediction, and provided AI-based growth forecasts tailored to 20+ Indian crops.

• MATHEMATICO - Special Mathematics Coaching Website

July 2025 [**○**] [**□**]

HTML, CSS, JavaScript, Tailwind CSS, Firebase

- Designed a comprehensive, responsive website for a mathematics coaching center with dynamic content management via Firebase Firestore for admin-controlled updates.
- Includes admin panel with secure Firebase authentication, CRUD operations for content, dynamic FAQ, testimonials, Google Maps integration, and a theme toggle for optimal user experience.

Tournament Manager Full-Stack Web Application

May 2025

React.js, Node.js, Express.js, MongoDB

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- Developed a full-stack web application for managing diverse tournaments (e.g., Cricket, Football) with team registration, automated match scheduling, real-time score updates, and dynamic leaderboard tracking.
- Features a user-friendly React.js frontend and a robust Node.js/Express.js backend with MongoDB for seamless data management and real-time responsiveness.

My Personal Portfolio Website

2024 (Ongoing)

- Meticulously designed and developed a personal portfolio showcasing skills, projects, and educational background, focusing on modern web standards and intuitive user experience.
- Features a dynamic dark/light mode toggle, smooth scrolling navigation, animated section reveals, and an integrated contact form, demonstrating proficiency in front-end development and responsive styling.

• Dream11 AI Team Predictor

2024 [**(**)] [**(**]

Python, Streamlit, Pandas, Machine Learning

- Built an AI-powered web application for predicting optimal fantasy cricket teams (e.g., Dream11), allowing users to leverage an integrated AI model for winning team combinations.
- Incorporates real-time data fetching for player statistics, a sophisticated predictive engine based on historical performance, and a user-friendly Streamlit interface for data-driven decisions.

• Mystic Vision AI Standalone Chatbot

July 2024

Python, Streamlit, Natural Language Processing (NLP), Machine Learning



- Developed an intuitive and engaging conversational AI application designed to offer insights and interactive dialogue, leveraging advanced NLP techniques and AI models.
- Provides a seamless user experience, allowing users to ask questions and receive thoughtful, contextually relevant responses, ensuring easy deployment and accessibility within a user-friendly web interface.

• Team Projects

• Early Detection of Parkinson's Disease Using ML

2023

Python, Scikit-learn, Pandas, Machine Learning

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- · Collaborative effort of a 6-member team focused on early detection of Parkinson's Disease using machine learning.
- Contributed to resource gathering, programming code development, team management, presentation design, and research paper writing.

• Employee Management System Website

Jan 2024 - June 2024

Node.js, React.js, Firebase Firestore, HTML, CSS



- Developed a comprehensive Employee Management System Website with a 6-member team.
- Roles included resource gathering, research on best practices, full-stack development using Node.js, React.js, and Firebase Firestore, and deployment.

Phishing URL Detection Using Machine Learning

2024

Python, TensorFlow, Scikit-learn, Machine Learning

- Team project focused on applying machine learning to real-world problems for phishing URL detection.
- Project was recognized with a Best Paper Award at the 2nd National Conference, RAICCIT 2025.

PUBLICATIONS

C=CONFERENCE, J=JOURNAL, P=PATENT, S=IN SUBMISSION, T=THESIS

[C.1] Souparna Paul, et al. (2025). **Phishing URL Detection Using Machine Learning**. In *Proceedings of the 2nd National Conference, RAICCIT*.

SKILLS

- Programming Languages: Python, JavaScript, SQL, C, Java, C++
- Web Development: Streamlit, React, HTML, CSS, Render, Django
- Data Science & ML: Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch, Data Visualization, Statistical Analysis
- Databases: Firebase-FireStore, MongoDB, MySQL, SQLite
- Tools & Platforms: Jupyter Notebooks, VS Code, Colab, Power BI, Excel, GitHub
- Soft Skills: Problem-solving, Teamwork, Communication, Adaptability, Leadership, Ability To Learn

HONORS AND AWARDS

Best Paper Award

2025

2nd National Conference, RAICCIT

• Recognized for the research paper "Phishing URL Detection Using ML."

SIH Internal 2023 Participation

2023

Smart India Hackathon, Narula Institute of Technology

• Participated in the Smart India Hackathon (SIH) Internal competition on "Real-Time Vehicle Tracking System."

Singing Contest: NiT Jewels (2nd Place)

April 2022

Narula Institute of Technology

• Secured 2nd place in the college singing contest.

ADDITIONAL INFORMATION

Languages: English (Professional Working Proficiency), Bengali (Native)

Interests: Writing Stories, Songwriting, Singing, Meditation