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EDUCATION

B. P. Poddar Institute of Management & Technology

Kolkata, India

Bachelor of Technology(B.Tech) in Information Technology, GPA(till 6th sem): 7.52/10

October 2022 - Present

CHITTARANJAN HIGH SCHOOL(ENG MEDIUM)
CHITTARANJAN DESHBANDHU VIDYALAYA(BENG MEDIUM)

Chittaranjan, India

Grade XII (WBCHSE); Score: 88.2% Grade X (WBBSE); Score: 88.71%

Jan 2014 - March 2021

PROFESSIONAL SUMMARY

Data-driven Software Developer skilled in Python, SQL, and OOP, with hands-on experience in building data analytics platforms, Al-powered web applications, and machine learning (ML) solutions. Proficient in using modern tools like Streamlit, LangChain, and Scikit-learn to design and deploy end-to-end systems integrating data processing, model development, and visualization. Familiar with Agile methodology, version control (Git/GitHub), and AWS fundamentals. Strong problem-solving, analytical, and communication skills with a proven ability to develop scalable, user-focused, and maintainable applications.

SKILLS SUMMARY

- Languages: Python, SQL
- Frameworks & Tools: Streamlit, Git, GitHub, Jupyter Notebook, Selenium, Flask (basic), LangChain, Webdriver-manager
- Libraries: Pandas, NumPy, Matplotlib, Seaborn, Plotly, Scikit-learn, BeautifulSoup4, LXML, html5lib, geopy, Folium, streamlit-folium, python-dotenv, langchain-ollama, langchain-google-genai, google-generativeai
- Concepts: Object-Oriented Programming (OOP), Data Structures & Algorithms (DSA), Software Development Life Cycle (SDLC), Agile Methodology, Software Testing & Debugging (Unit Testing, Error Handling), Modular Design, Technical Documentation
- Data & AI: Machine Learning (Regression, Classification), Model Evaluation & Deployment, Natural Language Processing (NLP), Generative AI (LangChain + Google Gemini), Exploratory Data Analysis (EDA), Data Cleaning, Visualization & Insights
- Cloud: Application deployment on Streamlit Cloud; introductory knowledge of AWS.

PROJECTS

Indian Railways EDA & Visualization (Data Analytics) | Link | Code

September 2025

- O Designed and developed a **modular data analytics platform** using Pandas, NumPy, Plotly, and Folium, applying **SDLC principles** for maintainability and scalability.
- O Conducted exploratory data analysis (EDA), statistical profiling, and feature correlation on stations, trains, and schedules datasets.
- Implemented geospatial analysis (station heatmaps, route mapping, distance calculator) and created interactive dashboards for schedule and zone insights.
- O Automated generation of **PDF and DOCX reports**, improving reporting efficiency and stakeholder communication.
- Deployed a **Streamlit web app** enabling real-time exploration, dataset downloads, and interactive data visualizations.

Al Web Scrapper (Automated Data Extraction Tool) | Link | Code

August 2025

- Engineered a Streamlit-based web scraping application with real-time URL validation, proxy authentication, and automated CAPTCHA handling.
- Built reusable parsing and content-cleaning modules with BeautifulSoup, enabling structured text extraction from diverse websites.
- o Integrated Google Gemini LLM via LangChain to support intelligent, query-driven information retrieval.
- Conducted performance optimization and debugging, introducing chunk-based DOM splitting that reduced response time by ~40%.
- o Delivered a production-ready solution with interactive dashboards, DOM content exploration, and user-defined parsing instructions.

Heart Disease Prediction System | Link | Code

August 2025

- Developed a machine learning-powered application using Logistic Regression with optimized hyperparameters for medical risk prediction.
- Applied unit testing and debugging to ensure robust and maintainable predictive pipelines.
- o Built a modular **Streamlit interface** with navigation (Home, Predict, About), enabling real-time predictions from user input.
- Conducted EDA and visualization to highlight dataset distributions, class imbalance, and feature importance.
- o Packaged and deployed the solution on Streamlit Cloud, ensuring high availability and accessibility.

CO-CURRICULARS

- Web Developer, TechStorm'24 (Annual College TechFest) March 2024
- Volunteer Lead, TechStorm'24 (Annual College TechFest) March 2024
- Winner, Tech Enquesta 2.23 (IEEE Intra-college Technical Quiz) Nov 2024 (demonstrated rapid analytical problem-solving among 100+ peers)
- Ranked 26/250+, CodeBee Inter-college Coding Competition (BPPIMT) 2024 (showcased strong algorithmic and programming skills)