ARITTRA BAG

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PROFESSIONAL SUMMARY

Final-year Computer Science student with experience in Full-Stack, SaaS, and AI/ML development. Proficient in Python, C++, SQL, and modern frameworks, with strong foundations in data analysis, algorithms, and software design. Delivered projects like trading simulators and BI dashboards, with hands-on debugging and testing.

EDUCATION

B. Tech in Computer Science and Engineering, Netaji Subhash Engineering College   Oct 2022 - Jun 2026
CGPA: 7.88/10

SKILLS

Languages:	Python, C++, Java (OOP), JavaScript, SQL (schema design, queries, ETL), Golang (Go)
Core CS:	Data Structures & Algorithms, Object-Oriented Programming, System Design
Backend:	FastAPI, Flask, Node.js, Express.js, REST, GraphQL, WebSockets
Frontend & BI:	TypeScript, React.js, Vite, Dash, Plotly, Streamlit, Gradio, Excel/Sheets, Power BI
AI/ML & Data Tools:	ML, Deep Learning, NLP, LLMs, RAG, PostgreSQL, MongoDB, MySQL, Redis

EXPERIENCE

AI Project Lead (Part-time) | A1 Future Technologies Pvt. Ltd.   *Mar 2025 – Oct 2025*
Led a 7-member dev team to design and deploy scalable APIs and AI integrations; applied OOP in Java/Python and implemented CI/CD pipelines (pytest, Docker, k6), reducing API latency by 40% and deployment time by 30%. Oversaw code reviews, debugging, and performance monitoring on Azure/AWS.

Research Intern | Indian Statistical Institute Kolkata   *Jan 2025 – Apr 2025*
Built secure, interactive dashboards by ETL-processing 1M+ COVID records and optimizing SQL schemas/queries; validated clustering with DBI, CHI, and Silhouette metrics, delivering actionable insights for ICMR stakeholders.

ML Developer (Part-time) | ScaleNow Technosolutions   *Sep 2024 – Mar 2025*
Developed Snowflake-based ETL and Flask microservices for real-time predictive analytics; deployed RBAC-secured dashboards and automated releases, cutting maintenance overhead by 25% and improving system uptime.

CERTIFICATIONS & RANKINGS

LeetCode — Max Rating **1573** (Top **27.29%** globally) | **AtCoder** — Best Rank **3298** | **View Certifications**

ACHIEVEMENTS

- **1st Runner-Up**, SIH Internal 2025 (Sep 2025) | **1st Runner-Up**, Ignitathon 2025 (Aug 2025) | **Top 5 Finalist**, Hack4Bengal 4.0 (Jun 2025) | **Onsite Finalist**, Diversion 2025 (Feb 2025) | **Onsite Finalist**, FrostHacks S01 (Sep 2024) | **East Region Runner-Up**, Trident Hacks 2023 (May 2023)
- **Contributor, Winter of Code 2024** – Enhanced system design and documentation for Face-X (facial recognition toolkit) by connecting with the Project Owner virtually. (Proof of Work)

PROJECTS

- **Quant Trade Simulator | Live | Code** : Built a real-time crypto trading simulator with **L2 orderbook** feeds, slippage models, and **AI sentiment** using **Python/Dash**, enabling **Excel-based backtesting** for strategies.
- **RetailOps BI | Code** : Built a BI platform with **Spark analytics, Snowflake DW, PyTorch forecasting**, and **AI-driven insights**, featuring **automated ETL**, **A/B testing**, and interactive business dashboards.
- **Dementia Dreamscape | Live | Code** : Built a medical-imaging analytics system using a **custom CNN** (acc: 99.99%), with real-time dementia stage detection, anomaly checks, and an interactive web UI for reporting and clinical dashboards.