ARKAPRABHA DE

Third Year Undergraduate, Java Backend Developer
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EDUCATION

Btech [CSE(AI)]	: Institute of Engineering & Management (Salt Lake, Kolkata, India)	2022 - 2026	CGPA	: 9.42
12th (ISC)	: Vivekananda Mission School (Joka, Kolkata, India)	2022	Percentage	: 96.4
10th (ICSE)	: Vivekananda Mission School (Joka, Kolkata, India)	2020	Percentage	: 95.2

PROJECTS

Query.AI *(SpringBoot, PostgreSQL, DeepSeek-R1)* - An end-to-end Doubt resolving platform. *(Mar 2025)* [⌂]
- Designing the Student, Teacher, Query databases for easy authentication and answer retrieval.
- Doubts are answered personalized by DeepSeek from an answer file uploaded by teachers.

ParcelFlow *(Java, SpringBoot, PostgreSQL)* - An Online Delivery Application Backend *(Feb 2025)* [⌂]
- Designed and implemented secure authentication & order management, improving transaction security.
- Passed rigorous testing with 10+ accounts with no bugs reported, ensuring high reliability.

HealthFuzz *(Python, Neural Networks, Fuzzy logic)* - A Mangrove Health Predictor using Fuzzy Rules *(Jan 2025)* [⌂]
- A neuro-fuzzy approach to classify mangrove trees on the basis of leaf-features into 3 health classes for each of the 3 species.
- Achieved an accuracy of 98% with the fuzzy rules derived from the Neural Network, resembling the ANFIS method.

PiPark *(Python, Raspberry-pi)* - A Priority-based parking system based on frequency. *(Feb 2024)* [⌂]
- The prototype **authenticates** users using phone number and OTP and saves valuable information locally.
- The testing phase comprised **20+** cars and the prototype successfully allocated parking places **priority-wise**.

Poseidon *(Arduino, Python, Bluetooth)* - A remote-controlled water-surface garbage-cleaning boat. *(Jan 2023)* [⌂]
- The prototype boat is controlled through a **custom built mobile application** via **bluetooth**.
- The boat was able to clean up-to **95%** of surface garbage on a small stagnant water-body.

Minesweeper *(Java)* - The Classic Minesweeper game built from **scratch**. *(Feb 2022)* [⌂]
- Users play on a **Command Line Interface** (CLI). Inspite of the lack of GUI, other functionalities were perfect.
- Successfully tested with 50+ players without bug reports, ensuring robust gameplay logic.

SKILLS

Languages: C, C++, Java, Python, HTML	**Libraries**: C++ STL, JCF, BeautifulSoup, OpenCV, Scikit-Learn
Frameworks: SpringBoot	**Data Analytics**: MS Excel, Pandas, Numpy, Matplotlib
Databases: MySQL, PostgreSQL	**Relevant Coursework**: DSA, OOP, DBMS, AIML

Technical Skills: Competitive Coding, Neural Networks, Data-Scraping, Micro-controllers
Areas of Interest: Machine Learning, Artificial Intelligence, Computer Vision
Soft Skills: Problem Analysis, Continuous Learning, Technical Communication, Flexible Mindset, Collaborative efforts

EXPERIENCE

Miamin Systems Inc. (Global Capacity Centres Providers) - *Software Engineer Intern*   Online *(Dec 2024 - Mar 2025)* [⊕]
- Designed and implemented a **scalable backend architecture** for an online delivery application.
- **Topics Learnt**: SpringBoot, RESTful APIs, PostgreSQL, Postman (for testing).

Future Infotech (Computer Teaching Centre) - *Teacher*   Behala *(Jan 2023 - Present)* [⊕]
- Developed structured curriculum for 30+ students of classes 5-12, leading to 20% average score improvement.
- **Topics & Languages Taught**: OOP, DSA, MS Office, C, C++, Java, Python

PUBLICATIONS

- Arkaprabha De, et al. (Feb 2023). **Poseidon: Surface Water Garbage Collector**.
  International Journal of Innovative Research in Physics, Vol. 4, Issue 2, pp. 27-31. DOI: 10.15864/ijiip.4205.

ACHIEVEMENTS

First Position: CodeBreak Odyssey - Competition operated in Innovacion event of IEM.	*(Mar 2024)*
First Position: Blind Coding - A blind-coding Competition devised by IEEE-IEM.	*(Jul 2024)*
Second Position: An Online Competitive Coding Event organized by IEEE-IEM.	*(Jul 2024)*

CERTIFICATIONS

NPTEL		**Coursera**	
• DSA using Java	*(Oct 2023)*	• Introduction to Generative AI	*(Dec 2024)*
• Getting Started with CP	*(Apr 2024)*	• Fundamentals of Java Programming	*(Jan 2025)*
• GPU Architectures & Programming	*(Apr 2024)*	• Data Structures & Backend with Java	*(Feb 2025)*