${ m Arkaprabha\ De}$

Third Year Undergraduate, Java Backend Developer Behala, Kolkata, India

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EDUCATION

Institute of Engineering & Management (Salt Lake, Kolkata, India)

Bachelor of Technology - Computer Science and Engineering(Artificial Intelligence)

(2022-26) CGPA: 9.42

Vivekananda Mission School (Joka, Kolkata, India)

Class XII - Indian School Certificate (I.S.C)

Class X - Indian Certificate of Secondary Education (I.C.S.E)

(2022)(2020) 96.4% 95.2%

PROJECTS

Query.AI (SpringBoot, PostgreSQL, DeepSeek-R1) - An end-to-end Doubt resolving platform.

(Mar 2025) [7]

• 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) [7]

• 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) [7]

• 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 (Puthon, Raspberry-pi) - A Priority-based parking system based on frequency.

(Feb 2024) [7]

• 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) [7]

• 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) $[\clubsuit]$

• 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

Leetcode: Maximum rating-1848 (Knight); Solved 400+ questions.	(Apr 2025)
AIR 3976: GATE (CS) 2025 Examination	(Mar 2025)
Second Position: An Online Competitive Coding Event organized by IEEE-IEM.	(Jul 2024)
First Position: Blind Coding - A blind-coding Competition devised by IEEE-IEM.	(Jul 2024)
First Position: CodeBreak Odyssey - Competition operated in Innovación event of IEM.	(Mar 2024)

CERTIFICATIONS

NPTEL

- DSA using Java
- Getting Started with CP
- GPU Architectures & Programming

Coursera

- Introduction to Generative AI
- Fundamentals of Java Programming
- Data Structures & Backend with Java