

PRIYA KUMARI

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EDUCATION

Institute of Engineering & Management, Kolkata, India
Bachelor of Technology in Computer Science and Engineering

September, 2022 - May, 2026
CGPA : 9.74 / 10

Baldwin Academy, Patna, India
Class XII - CBSE
Class X - CBSE

Grade : 93.2% (2019-21)
Grade : 96% (2018-19)

WORK EXPERIENCE

Indian Institute of Technology, Kharagpur — Project Intern

Dec 2024 - Feb 2025

- Investigated the impact of shift bribery in social networks, analyzing its effect on 25% of global elections and providing actionable insights for mitigating electoral manipulation, enhancing the understanding of its vulnerabilities and solutions.
- Engineered computational models to detect manipulative voting patterns, using complexity theory for automated defense mechanisms.
- Proved shift bribery is NP-complete in certain key scenarios and developed polynomial-time solutions for specific cases.

Indian Summer School on Cellular Automata — Research Intern - Certificate

May 2024 - Oct 2024

- Designed 5-neighborhood cellular automata (CA)-based pattern classifier, outperforming KNN, SVM, Naive Bayes and other existing classifiers with 20–30% higher efficiency across 7 benchmark datasets.
- Analyzed over 1 lakh 5-N binary CA rules, selecting 150 optimal rules with stable single-length cyclic behaviour to boost performance.
- Identified best performing rules (84, 1114110, 1244158, etc.) that optimized model accuracy while ensuring efficiency.
- Research work selected for the 4th Asian Symposium on Cellular Automata Technology and set for publication in Springer Nature.

PROJECTS

BookLoop [\[View Documentation\]](#)

Feb 2025 - Present

- Spearheading the development of BookLoop, a platform for book donation and knowledge-sharing, tackling the issue of underutilized books for educational purposes, improving book access by 30% through efficient user engagement features.
- Orchestrating the design and implementation of features like book listing, AI matching, educational library, and a credit reward system.
- Technologies Used: React.js, Node.js, Express.js, MongoDB, PostgreSQL, Python, Scikit-learn, Cloudinary, Mailgun.

SnapStream [\[GitHub Repo\]](#) [\[Website\]](#)

Nov 2024 - Dec 2024

- Built a dynamic image gallery platform, integrating advanced features such as search, pagination, favorites management, and image sharing/download options, allowing users to access and interact with over 5 million high-quality images from the Pixabay API.
- Optimized UI and navigation to boost user footfall and engagement, improved responsiveness, and integrated a personalized daily quote.
- Technologies Used: HTML, CSS, JavaScript, Pixabay API, Local Storage.

Aerothon - Drone [\[Certificate\]](#) [\[Report\]](#)

Sep 2024 - Nov 2024

- Architected a multirotor UAV for precise payload delivery, with manual and autonomous flight, achieving 90% flight test accuracy.
- Participated in the National-level Aerothon 2024 by SAE-INDIA, showcasing the UAV's performance in real-world scenarios.
- Technologies used : YOLO v9, MobileNet SSD v2, TensorFlow Lite, and Raspberry Pi

ACHIEVEMENTS

- Semi-finalist at **Google Girl Hackathon 2025** and ranked among **top 6%** in Round 1 of **Walmart CodeHers 2025**.
- AIR 26** in Aerothon 2024 phase-1 for the development of uncrewed aircraft, conducted by **SAE-INDIA**.
- Infosys Springboard** - Pragati Mentee | **Grace Hopper Celebration 2024 (GHC)** Scholar | **SheFi** cohort 6 Scholar
- Academic Excellence Award** for securing **rank 4** (1st yr.) and **rank 7** (2nd yr.) of B.Tech. [-View Certificates](#)
- Rank 1** at the school level in **Class Xth CBSE AISSCE** board exam.

TECHNICAL SKILLS

- Programming Languages:** C++ | C | JavaScript
- Web Technologies:** HTML | CSS | React.js | Node.js | SQL
- Problem Solving:** Data Structures and Algorithms | Competitive Programming
- Relevant Coursework:** Design and Analysis of Algorithms | Object Oriented Programming | Operating System | Database Management Systems | Software Engineering | Computer Networks | Machine Learning
- Tools/Platforms:** Git/GitHub | Oracle | MySQL | VS Code | Linux

POSITIONS OF RESPONSIBILITY

- Management Lead at Google Developer Groups IEM**, leading and coordinating a community of over 1200 students. (2024-25)
- Co-Lead at AlgoZenith IEM**, actively mentoring students and organizing impactful technical talks and hands-on sessions. (2024-25)
- Member of **Women In Technology (WIT)** community, contributing to initiatives promoting diversity and inclusion in tech. (2024-26)
- Reception Chair of the core committee at **SAE IEM Collegiate Club**, managing event operations and welcoming delegates. (2024-25)