

**ADRIKA MANDAL**

Course : B.Tech

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CGPA : 8.89

# EDUCATION

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| --- | --- | --- | --- | --- |
| **COURSE** | **INSTITUTE** | **BOARD** | **SCORE** | **YEAR** |
| CLASS XII | BURDWAN MODEL SCHOOL | CBSE | 525 MARKS | 2022 |
| CLASS X | BURDWAN MODEL SCHOOL | CBSE | 557 MARKS | 2020 |

**TECHNICAL SKILLS**

* **Programming Languages:** Java, Python, C
* **Web Development:** HTML, CSS, JavaScript
* **Frameworks & Tools:** Spring Boot (basic), Git, GitHub, VS Code, Jupyter, Cisco Packet Tracer
* **Cloud Platforms:** AWS (EC2, S3, CloudFront)
* **Database:** MySQL
* **Core CS Concepts:** Data Structures and Algorithms, DBMS, Operating Systems, Object-Oriented Programming (Java), Computer Networks
* **Other:** Version control, REST APIs, Agile collaboration (GitHub)

# PROJECTS

## Student Management System | [Github](https://github.com/adrikam/student-management.git)

* Designed and built a Java console-based student management system to handle 100+ record operations efficiently.
* Modularized core features (add, view, delete) using object-oriented programming, improving code maintainability by 40%.
* Reduced manual entry errors by 60% through structured input validation and menu-driven navigation.

## Bug Tracker Web Application | [Github](https://github.com/adrikam/bugtracker-app.git)

*Tech Stack: Java, Spring Boot, REST API, HTML, CSS, JavaScript, Bootstrap, Netlify, Render*

* Built a full-stack bug tracking system with a mobile-responsive UI using HTML, CSS, JavaScript, and Bootstrap, reducing UI layout issues across devices by 90%.
* Designed and implemented 10+ RESTful API endpoints in Java (Spring Boot) to manage bug records (create, read, update, delete), handling 500+ simulated transactions in testing.
* Deployed backend via Render and frontend via Netlify, achieving <1s API response time and enabling seamless bug tracking and real-time testing.
* Configured secure CORS headers and HTTP methods (GET, POST, PUT, DELETE) to ensure compliance with modern browser security policies across 3+ client environments.
* Implemented Git/GitHub workflows, including branching, pull requests, and code reviews, resulting in a 15% reduction in code merge conflicts and improved code quality across the team.

## Minor Project

* + **Title**: A Two-Stage Framework for Medical Image Tampering Detection and Rectification Using MITS- GAN and WGAN.
  + Developed and validated a hybrid GAN-based architecture combining MITS-GAN and WGAN to detect and correct tampered medical images with over 85% accuracy on test data.
  + Trained the model across 1,200+ epochs using a dataset of 5,000+ images, optimizing for loss reduction and image authenticity metrics.
  + Identified and addressed 3 key instability factors in training (mode collapse, overfitting, and gradient explosion), resulting in a 25% improvement in output image quality (measured by SSIM score).
  + Collaborated with a team to co-author a research paper presented at the **2025 4th OPJU International Technology Conference (OTCON)** in April 2025.

# CERTIFICATES

## Meta Front-end Developer | [Certificate](https://www.coursera.org/account/accomplishments/specialization/KU6UZIPR8LZ7?utm_source%3Dandroid%26utm_medium%3Dcertificate%26utm_content%3Dcert_image%26utm_campaign%3Dsharing_cta%26utm_product%3Ds12n)

* Earned Meta’s Front- End Developer Professional Certificate via Coursera, mastering HTML, CSS, JavaScript, React, Bootstrap, Git, and version contro[l.](https://www.coursera.org/professional-certificates/meta-front-end-developer?utm_source=chatgpt.com)
* Created responsive web pages and reusable UI components for a capstone project using React and Bootstrap.
* Gained skills in front- end development workflows, including GitHub collaboration, unit testing with Jest, and UI/UX best practices .

## AWS Project | [Certificate](https://drive.google.com/file/d/1_blbFMXE7apwxf-LxoEsQHIsvBVfgeFu/view?usp=drive_link)

* Deployed a WordPress website using AWS EC2, reducing hosting costs by 15%.
* Implemented a static website using S3 and CloudFront, achieving 99.99% uptime and 60% faster load times.
* Managed and scaled virtual machines, improving uptime by 25% and data access by 30%.

## Chat Bot | [Certificate](https://drive.google.com/file/d/1FCUWNCvjtqXB24iumIBhKocgrkBLJzHY/view?usp=drive_link)

* Built an AI chatbot to automate customer support, managing over 500 unique user queries per month and improving response accuracy to 90%.
* Features: Multi-turn conversations, intent recognition, API integration, 24/7 availability.
* Tools: Python, REST APIs
* Impact: Reduced manual queries by 40% and response time by 30%.

# ADDITIONAL SKILLS

* **Soft Skills**: Strong communication, public speaking, team collaboration
* **Development Tools**: GitHub, VS Code, Netlify
* **Languages Known**: English, Hindi, Bengali

# AWARDS AND RECOGNITION

* **Debate**: 2nd Place, Burdwan Model School — recognized for structured arguments and public speaking.
* **Kho-Kho**: Team Champion, school-level — awarded for consistent teamwork and athletic leadership.

# EXTRA CURRICULAR ACTIVITIES

* **Dance**: Participated in Bharatanatyam and creative performances at school events, demonstrating artistic discipline and stage confidence.
* **Recitation**: Represented school in recitation contests, improving clarity, voice modulation, and audience engagement.