

# TIRTHA BISWAS

Kolkata, West Bengal

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tirtha-biswas

## Education

Jadavpur University, Kolkata

2021-2025 CGPA: 7.2

Bachelor of Power (Specialization in Electrical) Engineering

Holy Cross School, Kolkata

2020 Score: 87.25%

Class 12 (ISC)

Holy Cross School, Kolkata

2018 Score: 91.20%

Class 10 (ICSE)

## Technical Skills and Frameworks

**Programming Languages:** C++, JavaScript, Java, Python, HTML, CSS

**Frameworks:** React.js, Tailwind CSS, Bootstrap, Express.js, Node.js, Flask

**Databases:** MySQL, MongoDB

## Projects

**Code XL (MERN, Redis, Flask)** | GitHub | Deployed Link | YouTube

- Designed a full-stack **MERN** (MongoDB, Express.js, React.js, Node.js) application for placement preparation, implementing **JWT** for robust user authentication.
- Created features for uploading **SDE/DSA practice sheets** in Excel format, enabling users to track progress through **infographics** for performance analysis. Implemented functionality for users to **take and save notes** on specific problems and **mark problems for revision**.
- Architected a **Customized Mock Test Generation** feature for topics including **Operating Systems (OS)**, **Object-Oriented Programming (OOP)**, **Database Management Systems (DBMS)**, and **Aptitude**. Designed a **Core Concepts Archive** feature to help users learn core computer science fundamentals.
- Boosted performance and scalability through **Redis** integration, leveraging **caching** for faster data retrieval and reduced latency, decreasing response time by **91%** for cached data.
- Created and used a **Flask API** with **Beautiful Soup** to scrape and compile data from **Codeforces** and **GeeksforGeeks**, displaying real-time updates on upcoming contests.

**BetterMe Healthcare App (React.js, Tailwind CSS, Flask, Langchain)** | GitHub | YouTube

- Led the development of a comprehensive healthcare application using **React.js**, **Tailwind CSS**, and **Flask**, providing users with an intuitive and responsive interface.
- Integrated **Stripe** for secure payment processing, enabling seamless transactions for services like appointment booking.
- Utilized **Zego Cloud** to implement real-time video calling features, facilitating virtual consultations between doctors and patients.
- Engineered advanced features like **Calorie counting**, **Posture correction**, and **Personalized Diet/Workout plans** using **Langchain** and **Generative AI**, enhancing user engagement and health outcomes.
- Achieved **99.97% accuracy** in disease prediction by implementing machine learning models, including **Support Vector Machines (SVM)**, **Decision Trees**, and **Random Forests**.

**Tic Tac Toe Game (React.js, Tailwind CSS)** | GitHub | Deployed Link

- Developed a **Tic Tac Toe game** using **React.js** and **Tailwind CSS**.
- Created an **intuitive user interface** with visually appealing components for an engaging user experience and in game animations using **Anime.js**.

## Achievements

- Secured an **All India Rank of 2152 in WBJEE** among 100,000+ candidates.
- Achieved **5th place** in the Jadavpur University Internship Screening Test (2023-2024) out of **450+** students.
- Ranked 8th among 450+ teams in the Hackforge Hackathon organized by Jadavpur University** at Srijan, the annual tech fest of Jadavpur University, while leading a team of 4 members.
- Solved over **800+** problems across various competitive programming platforms.
- Reached the highest rating of **1737 (3-star)** on CodeChef.

## Profile Links

- LeetCode, GitHub, CodeChef

## Interests

- Coding, Chess, Music