

TIRTHA BISWAS

Kolkata, West Bengal

📞 +91 9083613202 ✉ tirthamunai1234@gmail.com  [tirtha-biswas](https://www.linkedin.com/in/tirtha-biswas)

Education

Jadavpur University, Kolkata

2021-2025 CGPA: 7.0

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

Tools: VS-Code, Jupyter Notebook

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**.

Iris Species Classification (Python, Logistic Regression) | GitHub

- Developed a model on the Kaggle Iris dataset, utilizing **standardization** and **label encoding** for the species column, and conducted an in-depth analysis of parameter dependencies to accurately predict species.
- Achieved **100% accuracy** on the testing dataset using a **Logistic Regression** model and performed a comprehensive performance evaluation using a **Confusion Matrix**.

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