# Mridul Mahajan

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github.com/mridulmahajan04

## Technologies

**Languages:** Java, SQL

**Core CS Concepts:** Object-Oriented Programming (OOP), Data Structures  Algorithms, Database Management Systems

**Frameworks  Tools:** Flask, Docker, Numpy, Pandas

## Education

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| **Thapar Institute of Engineering and Technology**, BE in Computer Science | Sept 2023 – June 2026 |
| **Government Millennium Polytechnic College**, Diploma in Computer Science | Aug 2020 – June 2023 |

## Experience

**Deloitte Austrailia Technology Job Simulation on Forage**          July 2025
- Completed a job simulation involving development and coding
- Wrote a proposal for creating a dashboard

**Tata Data Visualisation**          July 2025
- Completed a simulation involving creating data visualizations for Tata Consultancy Services
- Prepared questions for a meeting with client senior leadership

## Projects

**Student Performance Prediction**          Github
- Built an end-to-end ML pipeline with EDA, feature engineering, and CatBoost to predict student performance.
- Deployed a scalable Flask web app using Docker; implemented logging and exception handling for maintainability.

**Network Security System**          Github
- Developed an ML model to classify websites as malicious or benign using Python and scikit-learn.
- Integrated MongoDB for scalable data storage and deployed via Docker with CI/CD pipelines (GitHub Actions).

**Ecommerce website**          Github
- Built a full-stack e-commerce web app with Flask, SQLAlchemy, and MySQL, including login, cart, checkout, and admin panel.
- Implemented secure authentication, optimized database queries, and used caching to improve performance.
- Utilized classic algorithms (quicksort for product sorting) and data structures (dictionary cache) to demonstrate computer science fundamentals.

**Real Time chat Application**          Github
- Built a real-time chat app using MERN stack  Socket.io with secure authentication (JWT  bcrypt).
- Developed a responsive React frontend and RESTful API backend for user management  messaging.
- Designed MongoDB schema (Mongoose) with protected routes for secure access.