

Gourab Modak

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[Portfolio Website](#) | [LinkedIn](#) | [Github](#) | [Codechef](#) | [Codeforces](#) | [Leetcode](#)

Professional Summary

Computer Science student with a strong background in software engineering and machine learning. Experienced in developing and optimizing ML models, performing data analysis, and leading technical projects. Proficient in Data Structures and Algorithms (DSA) and committed to teamwork and mentoring.

Education

Indian Institute of Technology Madras, BS in Data Science and its Applications May 2023 to Present

- CGPA: 9.63/10.0 (Topper) ([Profile Page](#)) ([Progress Card](#))

Jalpaiguri Government Engineering College, B.Tech in Computer Science Sept 2022 to May 2026

- CGPA: 9.43/10.0 ([Latest Progress Card](#))

Competitive Exams: 95.5%ile in JEE Mains and 98%ile in WBJEE Rank: 2100

Work Experience

Software Engineering Intern, iHub and HCl Foundation, IIT Mandi, H.P., India May 2024 to July 2024

- Automated EEG data signal processing from a 64-channel ANT Neuro device using Python scripts, significantly reducing manual workload and improving efficiency; implemented noise reduction algorithms on signal data from 150 patients.
- Developed and tested over 7 machine learning algorithms, including KNN, SVM, and Random Forest, achieving over 80% accuracy in classifying healthy individuals and Parkinson's patients, and predicting disease severity.
- Enhanced machine learning model performance by 20% through optimal hyperparameter tuning using grid search.
- Created an automated attendance system using QR code scanning, streamlining attendance tracking and eliminating manual work.

Projects

Competitive Programming Editor editor.vercel.app/

- The Competitive Editor is a custom-built code editor designed for competitive programmers. It provides an interactive interface for writing, running, and testing code efficiently, supports multiple programming languages, and includes a snippet library with useful algorithms and data structures for competitions.
- Tech Stack: Chakra UI, JS, ReactJS, Monaco Editor, Node JS.

Modified Machine learning Project on Diabetes Prediction github.com/spexcher/DBP

- Developed an advanced diabetes prediction model using Support Vector Machine; spearheaded the optimization of hyperparameters via Grid Search and Bayesian Optimization, achieving 78% prediction accuracy, best in the industry.
- Tools Used: NumPy, Pandas, Seaborn, Matplotlib, scikit-learn, scikit-optimize.

Achievements Certifications and Awards

- Coding Achievements:** Achieved 3 Star Coder status (Top 10%) on [CodeChef](#); solved over 1,500 DSA questions across various coding platforms like [Codeforces](#), [Leetcode](#) etc.
- 2ND Prize, IST Runner Up:** IIT Kharagpur Techfest (Kshitij) Voyager competition.
- Silver Medalist:** Achieved Excellency in [Data Structures and Algorithms in Python](#), [Joy of Computing in Python](#), [Discrete Mathematics](#), and [English Language for Competitive Exams](#).
- 1ST Prize:** Awarded for demonstrating exceptional problem-solving skills and advanced knowledge in Data Structures and Algorithms in College Coding Competition.
- 2ND Prize:** Recognized for outstanding writing ability and proficiency in English composition in College English Writing Competition.

Volunteering Experience

Student Mentor, Google Developer Student Clubs GDSC - JGEC Jalpaiguri W.B. India Aug 2023 to Feb 2024

- Promoted to AI/ML Core Team in 2023, led workshops, coding bootcamps, and mentored students in Data Structures, Algorithms, and AI/ML.
- Provided one-on-one mentorship, enhancing students' problem-solving skills and preparing them for coding contests.

Skills/Technologies

Programming Languages: [Python](#), [C++](#), JavaScript, Java

Machine Learning: Scikit-Learn, TensorFlow, Pandas, NumPy

Web Development: HTML, CSS, JavaScript, React, SQL, Django, MongoDB

Tools & Technologies: Git, GitHub

Software Development: Data Structures and Algorithms (DSA), Object-Oriented Programming (OOPs), Software Engineering