

Sourav Saha

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Education

M.Tech. in Applied Mathematics and Scientific Computing, IIT Roorkee <i>CGPA: 7.40/10.0</i>	2025
M.Sc. in Mathematics and Computing, IIT Guwahati <i>CGPA: 5.99/10.0</i>	2022
B.Sc. in Mathematics(Honors), Gurudas College, University of Calcutta <i>Percentage: 53.36/100.0</i>	2019
Class - XII - New Barrackpore Colony Boys' High School, W.B.C.H.S.E. <i>Percentage: 76.50/100.0</i>	2015
Class - X - New Barrackpore Colony Boys' High School, W.B.B.S.E. <i>Percentage: 88.00/100.00</i>	2013

Projects

AI-Powered Medical Chatbot with Context-Aware Retrieval GitHub 🔗	Dec 2024 - Jan 2025
<ul style="list-style-type: none">Tools Used: LangChain, HuggingFace Embeddings, ctransformers, Pinecone, PyPDFLoaderImplements Retrieval-Augmented Generation (RAG) using LangChain and Pinecone for medical Q&A.Extracts, tokenizes, chunks & embeds medical texts to enable efficient semantic search, retrieval & querying.	
Predictive Modeling of Personality Traits using MBTI Dataset GitHub 🔗	Feb 2024 - Apr 2024
<ul style="list-style-type: none">Tools Used: Python, Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn, Word-CloudPreprocessed social media data using TextBlob and NLTK, applying word word2vec tokenization for analysis.Used XGBoost, Logistic Regression & Decision Tree, achieved 65.9%, 63.1% & 51.3% accuracy respectively.	
IIT Guwahati Placement Portal GitHub 🔗	Sep 2021 - Nov 2021
<ul style="list-style-type: none">Tools Used: PHP, SQL, HTML, CSSCollaborated with a team of 2 to develop a placement portal for recruiting companies and students of IITG.Captured requirements & business rules to process database, ensuring system functionality & performance.	

Key Achievements

GATE 2023: Secured a percentile of 90.92, ranking 1133 out of 12463 candidates.	2023
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Skills and Certification:

Programming Languages: Python, SQL, R, MATLAB, C++, C
Software Packages: Power BI, MS Excel, phpMyAdmin, PyTorch, TensorFlow, scikit-learn, LangChain.
Key Courses: Linear Algebra, Probability and Statistics, Machine Learning, Deep Learning, Data Structure & Algorithm, Optimization Technique, Differential Equations, Database Management System, Graph & Matrices.
Certification: Google Advanced Data Analytics Specialization.

Positions of Responsibility and Extra Curricular

C.A.C. (Campus Affairs Councils) Member, IIT Roorkee	Sep 2023 - Aug 2024
<ul style="list-style-type: none">Collaborated with a 4-member team to resolve hostel and campus level issues, enhancing student hostel life.Organized 4 open workshops at the campus level on mental health for time management & stress handling.	
M.Tech representative, DAMSC, IIT Roorkee	Jan 2024 - present
<ul style="list-style-type: none">Liaised between 25 students and administration, organized 4 events and presented improvement feedback.	
Volunteer at the 12th International conference SOCPROS	August 2023
<ul style="list-style-type: none">Volunteered at the 12th International Conference on Soft Computing for Problem Solving, IIT Roorkee.	