

Raunak Seksaria

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Education

- **Bachelor of Technology in Computer Science and MS in Computational Natural Sciences by Research**
International Institute of Information Technology, Hyderabad, India (2023 - present) : **CGPA : 8.92**
 - **Grades:** Discrete Structures : 10/10, Data Structures and Algorithms : 9/10, Data and Applications (DBMS): 10/10, Linear Algebra : 9/10, Computing in Sciences - II : 10/10, General and Structural Chemistry: 10/10, Quantum Mechanics: 9/10
 - **Clubs and Societies:** Programming Club '24; Photography Club '23, '24; Film club '24; Fest Corporate Team '24
- *St. James' School, Kolkata, India (2008 - 2023)* **ICSE Class 10th : 98% | ISC Class 12th: 97.75%**
Clubs and Societies: Student Council and Prefect, Secretary - Maths Club, Director - Science Club, MUN Society

Academic Achievements

- Academic Awards, IIIT Hyderabad: **Deans List 2** - Spring '24 | **Deans List 3** - Monsoon '23
- National Entrance Exams : JEE Mains : 99 percentile | JEE Advance : Rank 4543 | WBEE : Rank 288 | UGEE : Rank 188
- The Bishop's Medal for Academic Excellence (School Topper in Science Stream)

Projects

- **Full Stack Website for Buy, Sell, Rent on College :** *(ongoing)*
Developing on MERN Stack as a part of the coursework for 'Design and Analysis of Software Systems'
- **Reproducing the results of paper Spatiotemporal Signal Propagation in Complex Networks, C. Hens:** *Link*
Studied signal propagation on various kinds of graphs, including Erdos-Renyi Graphs, Barabasi-Alberts, etc. for different models, including the SIS model for disease propagation, Michaelis-Menten model for kinetics
- **Wrote a report on 'Protein Interaction Networks(PINs): A computational perspective':** *Link*
Read 7+ review and research articles, and focused on Deep Learning advances in the field, specifically on Graph Neural Networks (GNNs) to predict Protein Interactions, and Support Vector Machines (SVMs) for finding biologically relevant protein interfaces
- **Full Stack photo-slideshow web-app** *Link*
Deployed a full-stack web-app, using HTML, CSS, JavaScript, Python(libraries used : Flask, PyJWT, MoviePy, Gunicorn), SQL
- **Computational modelling of scientific problems:** *Link*
Modelled problems like Random Walks, Prey-Predator, Logistic Map (Steady-State Analysis), Monte-Carlo Simulations (Multi-dimensional Integrals), Fourier Analysis using complex numbers and epicycles, as part of course 'Computing-in-Science-II'

Skills

- **Programming Languages:** Python, C++, C, JavaScript, Java, SQL **Tools:** Git, Linux CLI, Shell Scripting, Jupyter Notebook
- **Libraries and Frameworks:** Numpy, Matplotlib, Networkx, TensorFlow, Scikit-learn, Pandas, Flask, Next.js, Tailwind, SQLite
- **Other:** Computational Modelling, Graph Theory, Data Visualization, Machine Learning, Quantum Mechanics

Experience

- **Project: AI Audio Journaling Module — Startup: HopeLog** *(ongoing)*
Implementing features like speech-to-text transcription, text-to-speech prompts, sentiment analysis, retrieval-augmented generation (RAG) for context-aware interactions, secure data handling, gamification, and multilingual support, to provide a voice-first journaling experience
- **Co-founder — Katran (Onaya Foundation)** *(2020-2023)*
 - Upcycled 10000m+ waste fabric, distributed 8000+ dresses to marginalised children, uplifted 40+ marginalized artisans
 - Helped raise ₹3+ Lakh, organized 15+ fundraising events like debate, extempore, and nationwide plantation drives
 - Featured in 12+ leading publications, including The India Times, The Telegraph, The Better India, Global Indian

Extra-curricular Activities:

- Senior Diploma and Distinction in Art and Painting - Issued by Rabindra Bharati University
- **Chairperson :** JacoMUN '22,'23 - Chaired committees in one of the biggest MUN events in India, with 600+ delegates
- Participated in **20+ debate competitions and MUN's**, having podium finishes in national-level public speaking events

Certifications:

- **Supervised Machine Learning: Regression and Classification:** DeepLearning.AI, Stanford University
- **Machine Learning, Neural Networks & Data Science:** Consulting & Analytics Club, IIT Guwahati *Coursework*
Built a multi-label predicting neural network with 99.97% accuracy for the course-end hackathon