

# SOHAM BHATTACHARYA

Research Intern, Indian Statistical Institute Kolkata  
M.Sc. in Big Data Analytics, RKMVERI Belur

@ bhattacharyasoham026@gmail.com  
sohambhattacharya

in bhattacharyasoham026

soham-b-github

8017751019



## PROJECTS

- **Multimodal Sentiment Analysis** *Jun.'25 - present, ISI Kolkata*  
Novel perspective on multimodal sentiment analysis through underutilized yet emotionally rich cues in real-world media  
**Keywords:** Sentiment Analysis
- **K8sCIFAR** *Jan.'25 - Apr.'25, RKMVERI*  
Demonstrated distributed data parallelism on CIFAR-10 using Kubernetes  
**Tools:** PyTorch, Kubernetes, Docker
- **Raag Sense** *Jan.'25 - Apr.'25, RKMVERI*  
A pioneering DL-based system for raga recognition in Indian Classical Music (ICM), setting a new benchmark  
**Keywords:** Data curation, ICM-aware feature extraction, MFCC, CNN
- **ChessLens** *Jan.'25 - Apr.'25, RKMVERI*  
A cost-effective, vision-based system for accurate chess piece tracking and board digitization, poised to be a potential alternative to DGT chessboards  
**Keywords:** open-cv, comprehensive EDA, occupancy detector
- **Rhythms of the Mind** *Aug.'24 - Nov.'24, RKMVERI*  
An intelligent model that analyzes music consumption patterns to detect changes in mental health, supporting personalized music therapy  
**Keywords:** Python, Kaggle, EDA, Feature engineering, fine-tuning
- **Savoring Sentiments** *Jan.'24 - Apr.'24, IIT Madras*  
An ML model that predicts restaurant's recipe ratings by analyzing user reviews and key engagement metrics, combining textual sentiment with numerical insights.  
**Keywords:** EDA, TF-IDF Vectorizer, LightGBM

## COURSEWORK

### RKMVERI Belur:

Deep Learning • Natural Language Processing • Computer Vision  
• Artificial Intelligence • Time Series Forecasting • Survival Analysis  
• Machine Learning • Statistics • Java & Hadoop • Econometrics  
• Finance • Reinforcement Learning • DL in Cyber Security

### Indian Institute of Technology Madras:

Programming in Python • Machine Learning • Tools in Data Science  
• Business Data Management • Business Analytics • Statistics

## ACCOMPLISHMENTS

- **Badges earned:** Introduction to **GenAI** (Google Cloud), **Machine Learning** Foundations (AWS Educate) *(Aug.'25)*
- **Udacity:** Introducing **Generative AI** with AWS *(Aug.'25)*
- Attended **Crest Crypto Summer School 2025**, TCG Crest *(June 2025)*
- NPTEL Workshop: Time Series Forecasting using **LSTM and ARIMA** *(Jun.'2025)*
- **Topper** in courses: Statistics, Data Structures & Algorithms (**RKMVERI**)  
Tools in Data Science, Programming in Python (**IIT Madras**)
- **Coursera:** Automation & Advanced Techniques with **Copilot in Excel** by Microsoft *(Jul.'25)*, Introduction to **Machine Learning on AWS** *(Feb.'25)*, Google Crash Course in Python *(Sept.'22)*
- **NPTEL:** Competitive Programming *(Nov.'24)*
- **Google:** **Google Analytics** Individual Qualification *(Jul.'24)*

## EXPERIENCE

### Research Intern

Jun.'25 - present ISI, Kolkata

Advisor- Dr. Umapada Pal & Dr. Ali Reza Alaei

## EDUCATION

- **Ramakrishna Mission Vivekananda Educational and Research Institute (RKMVERI), Belur, Howrah**  
**M.Sc. in Big Data Analytics**  
(Rank: 5/27)  
2024 – Present (Sem-1) CGPA: 7.87
- **Indian Institute of Technology Madras**  
**Diploma in Data Science**  
2021 – 2024 CGPA: 8.54
- **St. Xavier's College Kolkata**  
**B.Sc.(H) in Mathematics**  
2021 – 2024 CGPA: 6.72
- **Don Bosco School Liluah**  
**Indian School Certificate (10+2)**  
2019 – 2021 Score: 94.25%  
**Indian Certificate for Secondary Education (10)**  
2008 – 2019 Score: 90%

## TECHNICAL SKILLS

- **Programming Languages:** Python, Java, SQL, C, C++,  $\LaTeX$ , HTML, CSS
- **Frameworks:** PySpark, Hadoop, Pregel
- **Databases:** MySQL, Neo4j
- **Tools:** R, Docker, Git/Github, MS Excel, Google Analytics, AWS, QGIS, Geopandas, Google Data Studio, Flourish, Tableau, Kumu, Power BI

## LEADERSHIP POSITIONS

- **RKMVERI**
  - Placement Coordinator *[May'25 - Present]*
  - Organizing Committee Member, Percepton 2025 (annual departmental tech fest) *[Jan.'25]*
  - Class Representative *[Jul.'24 - Present]*
- **IIT Madras**
  - Group Leader, Student Council IITM BS *[Aug.'23 - Aug.'24]*