DARPAN BHATTACHARYA

M.Sc. in Big Data Analytics, RKMVERI, Belur

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PROJECTS

- **Know Your Food**: Food Identification and Nutritional Analysis Application
  Guide: Prof. C.V. Jawahar   *IASc-INSA-NASI SRFP 2025*
  Skills: PyTorch, OpenCV   *May '25 – Present, IIIT Hyderabad*
  - Developing a computer vision-based application for Indian food identification and nutritional analysis.

- **ChessLens**: Automatic Chess Move Detection using Computer Vision
  Faculty: Br. Bhaswarachaitanya   *Computer Vision (CS342)*
  Skills: PyTorch, OpenCV   *Jan '25 – Apr '25, RKMVERI*
  - Designed and implemented a system to automatically detect chess moves from board images using CV techniques.

- **K8sCIFAR**: Distributed Model Training using K3s
  Faculty: Mr. Champak Dutta   *Graph DB & Distributed Computing (DA244)*
  Skills: Docker, K3s   *Jan '25 – Apr '25, RKMVERI*
  - Employed K3s to enable distributed data-parallel training of models on the CIFAR-10 dataset.

- **Rhythms of the Mind**: Impact of Music Tastes on Mental Health
  Faculty: Br. Bhaswarachaitanya   *Machine Learning (CS230)*
  Skills: Python, EDA   *Aug '24 – Nov '24, RKMVERI*
  - Analyzed the impact of an individual's music tastes on their mental health.
  - Achieved 76.7% accuracy using Softmax Regression.

- **Personality Prediction from Bangla Handwriting**
  Guide: Dr. Chayan Halder   *B.Sc. Final Year Project*
  Skills: Python, OpenCV   *Jan '24 – Apr '24, RKMVCC*
  - Predicted Big Five personality traits from handwritten Bangla text.
  - Reached a minimum RMSE of 0.15 using a Random Forest Regressor.

- **Automated Bangla Character Extraction from Data Forms**
  Guide: Dr. Kaushik Roy   *Internship*
  Skills: Python, OpenCV   *Sep '22 – Feb '23, WBSU*
  - Developed an automated pipeline to extract Bangla characters from isolated form entries using image processing.

COURSEWORK

- Data Structures and Algorihms (CS110)
- Machine Learning (CS230)
- Statistics with R (DA102)
- Probability and Stochastic Processes (DA104)
- Java and Hadoop (DA110)
- Linear Algebra and Matrix Computation (DA109)
- Advanced Statistical Methods (DA210)
- Time Series and Survival Analysis (DA312)
- Deep Learning and NLP (DA345)
- Graph Database and Distributed Computing (DA244)
- Computer Vision (CS342)

ACHIEVEMENTS

- Selected for Science Academies' Summer Research Fellowship Program *'25, '23*
- **Winner**, Turing Show – Inter-college programming contest, RKMVERI *'24, '23*
- **Winner**, Codethesis – Inter-college programming contest, GNIT Kolkata *'24, '23*
- **Top 2000**, Meta Hacker Cup (among ∼20k participants) *'23, '22*
- **Winner**, Codefiesta – Inter-college programming contest, BESC Kolkata *'22*
- Qualified Zonal Computing Olympiad (ZCO) (top 100 / ∼8k participants) *'20*
- Regionalist, ICPC for Schools (Gwalior–Pune Onsite) *'19*
- Codeforces: Expert (top ∼7% globally), CodeChef: 5 star (top ∼6% globally)

EDUCATION

- **Ramakrishna Mission Vivekananda Educational and Research Institute (RKMVERI), Belur**
  M.Sc. in Big Data Analytics
  📅 2024 – Present   *CGPA: 6.33 (upto Sem 1)*

- **Ramakrishna Mission Vivekananda Centenary College (RKMVCC), Rahara**
  B.Sc. (Hons.) in Computer Science
  📅 2021 – 2024   *CGPA: 9.09*

- **Don Bosco School, Liluah**
  ISC, ICSE
  📅 2008 – 2021   *ISC: 93.25%, ICSE: 93%*

EXPERIENCE

Summer Intern
IASc-INSA-NASI SRFP 2025
📅 May '25 - Jul '25   📍 CVIT, IIIT Hyderabad
Computer Vision   Advisor- **Prof. C.V. Jawahar**

Summer Intern
IASc-INSA-NASI SRFP 2023
📅 May '23 - Jul '23   📍 IISc Bengaluru
Theory CS   Advisor- **Prof. L. Sunil Chandran**

Research Intern
📅 Sep '22 - Feb '23   📍 WBSU, Kolkata
Computer Vision   Advisor- **Prof. Kaushik Roy**

SKILLS

- **Programming**: C, C++, Java, Python, R, SQL, HTML, CSS, JavaScript
- **Other Technologies**: Linux, Hadoop, Kubernetes, Neo4j, PyTorch, OpenCV, Git, LaTeX, Jupyter Notebook
- **Languages**: English (fluent), Bangla (native), Hindi (intermediate)

VOLUNTEERING

- **Volunteer**, Perceptron - RKMVERI Tech Fest
  Dept. of CS, RKMVERI   *Jan '25*
- **Co-organizer, Problem Setter and Tester**, Nirdesh - RKMVCC Tech Fest
  Dept. of CS, RKMVCC   *Oct '23*
- **Co-organizer, Problem Setter and Tester**, Neuroverse programming contest
  Dept. of CS, RKMVCC   *Apr '23*

HOBBIES

- Competitive Programming, Chess