

PARTHA METE

M.Sc. in Big Data Analytics
RKMVERI, Belur Math, West Bengal, India

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in parthamete

ParthaMete

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Portfolio



PROJECTS

- **Unsupervised Sign Gloss Discovery from Continuous Sign Videos (On-going)**
PyTorch | Autoencoders | MediaPipe | 3D Keypoints | BP-HMM [\[View Code\]](#) Jan 2025 – Present
 - Extracted and normalized 3D pose and hand keypoints from sign videos using MediaPipe Holistic.
 - Trained separate autoencoders to learn compact latent features from skeletal motion data.
 - Preparing latent sequences for unsupervised segmentation using Bayesian Probabilistic HMMs.
- **Smart Control Hub: Multi-Functional Virtual Controller using Hand Gestures**
OpenCV | Mediapipe | Python | PyAutoGUI | PyCAW [\[View Code\]](#) Jan 2025 – May 2025
 - Built a webcam-based virtual controller with gesture-driven modules for **volume/brightness, mouse control, and slide navigation**.
 - Used **Mediapipe** for real-time 3D hand landmark tracking; integrated system actions via **PyAutoGUI** and **PyCAW**.
 - Achieved **smooth (approx. 30 FPS)** performance with intuitive gestures and visual feedback under varying conditions.
- **Artistic Image Transformation in Ghibli Aesthetic**
PyTorch | CycleGAN | GAN | Unpaired Translation | Image Generation [\[View Code\]](#) Jan 2025 – May 2025
 - Implemented CycleGAN from scratch for unpaired image-to-image translation between real and Ghibli-style domains.
 - Trained on image dataset with custom preprocessing and identity, cycle consistency, and adversarial losses.
 - Achieved visually consistent Ghibli-style outputs preserving structure and texture fidelity.
- **Semantic Image Synthesis with GauGAN**
TensorFlow | GAN | SPADE | VAE | Semantic Segmentation [\[View Code\]](#) Jan 2025 – May 2025
 - Built GauGAN from scratch using SPADE normalization and a variational encoder for semantic-to-image translation.
 - Trained on Facades and Pascal VOC datasets with multi-loss optimization (GAN, KL, VGG, feature matching).
 - Achieved FID 10.54, 90.8% Pixel Accuracy, and 84.8% mIoU on Facades dataset.

COURSEWORK

- Deep Learning
- Natural Language Processing
- Computer Vision
- Artificial Intelligence
- Machine Learning
- Statistics
- Linear Algebra
- Time Series
- Survival Analysis
- Probability
- Econometrics & Finance
- Reinforcement Learning

ACHIEVEMENTS/CERTIFICATIONS

- **Qualified** in written test of ISI MSQMS 2024
- **Qualified** in IIT-JAM 2024
- **Qualified** in CUET 2024

EDUCATION

- **Ramakrishna Mission Vivekananda Educational and Research Institute, Howrah**
M.Sc. in Big Data Analytics
📅 2024 – Present (Sem-1) CGPA: 7.33
- **Asutosh College, Kolkata**
B.Sc.(H) in Statistics
📅 2020 – 2023 CGPA: 8.033
- **Ramakrishna Mission Boys' Home High School, Rahara**
Higher Secondary
📅 2018 – 2020 Score: 97%
- **Ramakrishna Mission Boys' Home High School, Rahara**
Secondary
📅 2007 – 2018 Score: 92.83%

TECHNICAL SKILLS

- **Programming Languages:** Python, R, HTML, \LaTeX
- **Libraries:** NumPy, Pandas, Scikit-learn, Matplotlib, Pytorch,
- **Tools:** Git/Github, Google Colab, Jupyter Notebook, VS Code, MS Office
- **Operating System:** Windows, Linux (Ubuntu)

LEADERSHIP POSITIONS

- **Fest Organizer**
 - Organizing Committee Member, Percepton 2025 (annual departmental tech fest) [Jan.'25]

HOBBY

- Indian Music, Football