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Dipan Banik

Data Science Enthusiast

click here for linkedin
click here for github

Currently pursuing M.Sc. in Big Data Analytics in RKMVERI, Belur. Disciplined and dedicated student with 2 major projects and several small projects experiences on computer vision fundamentals.

Projects

Left Ventricle Segmentation using EDPCNN **March 2021 — June 2021**

Dr. Sujoy Kumar Biswas (Director and Principal scientist, AIMP Labs; Visiting scientist, ECSU, ISI Kolkata)

- A new methodology(EDPCNN) to improve the performance of U-Net segmentation with a small number of training data(MRI images).
- with 1516 short axis MRI heart scans, U-Net dice score : 0.84; EDPCNN Dice Score : 0.89
  with 10 short axis MRI heart scans, U-Net dice score : 0.63; EDPCNN Dice Score : 0.83

Harris Corner and SIFT Implementation **28 March 2021 — 18 April 2021**

Br. Tamal (PhD, University at Buffalo, Buffalo, NY, USA)

- Implementing Harris Corner and SIFT algorithm with OpenCV, numpy in python.
- comparative study on both techniques using custom images.

Hybrid Image Production **2 March 2021 — 14 march 2021**

Br. Tamal (PhD, University at Buffalo, Buffalo, NY, USA)

- Creating Hybrid Images by overlaying high pass features and low pass features of an image.
- Concepts used : Fourier Transform, Image Derivative.

Sea Level Pressure Prediction using Multiple Linear Regression **20 July 2021**

self-paced

- Predicting Sea-Level Pressure in Austin-weather dataset (source : Kaggle) using average temperature and average dew-point with Multi-Linear Regression.
- achieved lowest M.S.E. : 0.0162

Education

Master of Science, Big Data Analytics, RKMVERI, GPA : 9.00/10.00 **August 2020 — Present**
Master of Science, Mathematics, RKMVC College, State University **2019 — 2020**
Bachelor of Science, Mathematics, Asutosh College, Calcutta University, passed with First Class **2017 — 2019**
Higher Secondary, Science stream, WBBSE, Narendranath vidyamandir, percentage : 85.8 **2016**
Secondary, WBBSE, BRKMAHS, percentage : 82.4 **2014**

Analytics Skills

Machine Learning	●●●●○	**Deep Learning**	●●●●◐
Data Engineering	●●●●○	**Data visualization**	●●●●◐
Optimization Algorithms	●●●◐○	**Data Augmentation**	●●●●○
Computer Vision	●●●●◐	**Natural Language Processing**	●●●○○

Programming Languages & Databases

Python	●●●●◐	**R or R-Studio**	●●●●○
SQL	●●●●◐	**MongoDB**	●●●◐○
Neo4J	●●●◐○	**PySpark**	●●●○○
Hadoop	●●○○○	**Flask**	●●○○○

Experiences

- Participated in **Amazon ML Challenge, 2021**; Main focus : Feature extraction using BERT SentenceTransformers.
- Participated in **Kaggle Tabular Playground Series - 2021**; Main focus : Principal Component Analysis