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RESEARCH INTERESTS	Computer Vision, Deep Learning, Reinforcement Learning, Pattern Recognition, Image Processing.	
PRESENT POSITION	Pursuing B.TECH in CSE (since August 2016).	
EDUCATION	<b>Institute of Engineering &amp; Management, Kolkata (India)</b> complete 2020 <b>University:</b> Maulana Abul Kalam Azad University of Technology <i>Formerly known as West Bengal University of Technology</i> <ul style="list-style-type: none"> <li>- Computer Science &amp; Engineering</li> <li>- DGPA: Approx 8.7/10 (In 7 Semesters)</li> <li>- Pursuing Bachelor of Technology (Honours)</li> </ul>	
	<b>Pangsha College, Pangsha, Rajbari (Bangladesh)</b> 2015 - Board of Intermediate and Secondary Education, Dhaka(12 <sup>th</sup> Standard) - GPA: 5.00/5.00	
	<b>Yakub Ali Chowdhury Bidyapith, Pangsha, Rajbari (Bangladesh)</b> 2013 - Board of Intermediate and Secondary Education, Dhaka (10 <sup>th</sup> Standard) - GPA: 5.00/5.00	
JOURNAL PUBLICATIONS	1. <b>Shuvozit Ghose</b> , Abhirup Das, Ayan Kumar Bhunia, Partha Pratim Roy, “Fractional Local Neighborhood Intensity Pattern for Image Retrieval using Genetic Algorithm”, <b>Multimedia Tools and Applications 2020, Springer</b> (DOI:10.1007/s11042-020-08752-6). [ <a href="#">PDF</a> ] [ <a href="#">arXiv</a> ] <ul style="list-style-type: none"> <li>• <b>Highlights:</b> <ul style="list-style-type: none"> <li>• A new texture descriptor has been proposed utilizing genetic algorithm for content based image retrieval.</li> <li>• Our method has achieved superior performance in comparison to other state-of-art approaches on Brodatz texture image, Salzburg texture database, Salzburg texture database and AT&amp;T face database. .</li> </ul> </li> </ul>	
	1. Ayan Kumar Bhunia, Ankan Kumar Bhunia, <b>Shuvozit Ghose</b> , Abhirup Das, Partha Pratim Roy, Umapada Pal “A Deep One-Shot Network for Query-based Logo Retrieval”, <b>Pattern Recognition</b> , Volume 96, Pages 106965, 2019. (DOI:10.1016/j.patcog.2019.106965). [ <a href="#">PDF</a> ] [ <a href="#">Github</a> ] (I.F.- 5.898) <ul style="list-style-type: none"> <li>• <b>Highlights:</b> <ul style="list-style-type: none"> <li>• A scalable solution for the logo detection problem by redesigning the traditional problem setting capable of detecting small logos.</li> </ul> </li> </ul>	

- A query-based logo search and detection system by employing a simple, fully differentiable one-shot learning framework which is adoptable to new classes.

## CONFERENCE PAPERS

1. Perla Sai Raj Kishore, Ayan Kumar Bhunia, **Shuvojit Ghose**, Partha Pratim Roy, “User Constrained Thumbnail Generation Using Adaptive Convolutions”, *International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, London, 2019. [\[PDF\]](#) [\[Github\]](#) [\[arXiv\]](#) [\[Oral\]](#)

### • Highlights:

- A new framework for user constrained thumbnail generation using Adaptive Convolutions.
- Our method has achieved superior performance in comparison to other conventional approaches.

## FAMILIARITY WITH DL

- |                       |                                    |                      |
|-----------------------|------------------------------------|----------------------|
| (i) CNN               | (ii) Convolutional LSTM model      | (iii) RNN/LSTM       |
| (iv) DC-GANs          | (v) GANs for Image to Image Trans. | (vi) Seq2Seq         |
| (vii) Siamese Network | (viii) Attention based Model       | (ix) VAE             |
| (x) Domain Adaptation | (xi) Semantic Segmentation         | (xii) Style Transfer |

## RELEVANT PROJECTS

- Shadow Detection using RESNET Encoder-Decoder Network [**Tools:** Python/Pytorch] [\[Github\]](#)
- A Deep One-shot Network for Query-based Logo Retrieval [**Tools:** Python/Tensorflow]
- Object Recognition Using All CNN Network in CIFAR-10 [**Tools:** Python/Tensorflow] [\[Github\]](#)
- Triplet Dataset generation in FlickersLogos32 Dataset [**Tools:** Python] [\[Github\]](#)
- User Constrained Thumbnail Generation System [**Tools:** Python/Tensorflow]
- E-Commerce Data Analysis Using Hadoop [**Tools:** Hadoop/Hive] [\[Report\]](#)
- Smart Home Automation System using Sensors [**Tools:** Arduino/C] [\[Report\]](#)

## ACHIEVEMENTS

- Trainee at OgmaTech Lab, 2019.
- Got NPTEL Elite Certification in Deep Learning for Visual Computing, 2018.
- Got A in 17th Rock Climbing Course, 2017.
- Complete Marathon in UEM-IEM Kolkata Marathon 2017.
- Active Member of Green Revolution.
- 2nd Prize in Tabla, Bangladesh Sishu Academy Competition District Level, 2009.

## RELEVANT COURSEWORK

- |                                  |                               |                           |
|----------------------------------|-------------------------------|---------------------------|
| (i) Linear Algebra & Diff. Eqn.  | (ii) Statistics & Probability | (iii) Data Structure      |
| (iv) Object Oriented Programming | (v) Algorithm                 | (vi) Discrete Mathematics |

## TECHNICAL SKILLS

- Programming Languages: C, C++, JAVA, Python.
- Low level Programming : 8085 Assembly.
- Deep Learning Framework: Tensorflow, Pytorch.
- Big Data Platform: Hadoop, Map-Reduce, Hive, Hbase, Pig, Scoop.
- Hardware Exposure: Arduino.
- Web Platform: HTML, CSS, JavaScript.
- Mathematics: Linear-algebra, Probability, Statistics.
- Miscellaneous: OpenCV, LIBSVM library, HTK library.

REFERENCES

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