Tathagata Debnath

(Computational Biology | Data Science | Computer Science)

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EDUCATION

Ph.D. Computer Science with focus on Bioinformatics   Las Cruces, NM | Fall, 2018 - Present
CGPA: 4.00
M.Tech. Computer Science with focus on Computer Vision   Suryamani Nagar, Tripura, India | 2015 - 2017
CGPA: 9.83 / 10
B.Tech. Computer Science   Agartala, Tripura, India | 2011 2015
CGPA: 7.62 / 10

WORK EXPERIENCE

NMSU| COMPUTER SCIENCE| NSF | Research Assistant (RA)   Las Cruces, NM | May 2019 - Present
NMSU| BIOLOGY| NASA | Research Assistant (RA)   Las Cruces, NM | Sep 2021 - Present
NMSU| COMPUTER SCIENCE | Teaching Assistant (TA)   Las Cruces, NM | Aug 2018 - May 2021
TRIPURA UNIVERSITY | V Research Associate (RA)   Suryamani Nagar, Tripura, India | Jul 2017 – Jul 2018

PUBLICATIONS

- Circular Silhouette and a Fast Algorithm
- Fast optimal circular clustering and applications on round genomes
- EF-Index: Determining number of clusters (K) to estimate number of segments (S) in an image
- Designing of an inflammatory knee joint thermogram dataset for arthritis classification using deep convolution neural network.
- RASIT: region shrinking based accurate segmentation of inflammatory areas from thermograms
- Clusters and Segments in an Image

SKILLS

Languages: R, Python, C, C++, Java, Bash, PHP, MATLAB, SQL
Developed Software: OptCirClust, Fast Optimal Circular Clustering, Pohori, CircularSilhouette, EF-Index, RASIT
Web Development: HTML/CSS, JavaScript, Ajax
Technology: Git, Docker, LATEX, TensorFlow

AWARDS

- Biopattern award at NMSU.
- Ph.D. tuition scholarship at NMSU.
- Gold Medal at M.Tech for becoming the branch topper.
- Gold Medal for getting 100% marks in mathematics on the board exam.

CERTIFICATIONS

- Finding Hidden Messages in DNA (Bioinformatics I) (with Honors)
- Deep Learning Specialisation
- Convolutional Neural Networks
- Sequence Models
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- Structuring Machine Learning Projects
- Neural Networks and Deep Learning

ACADEMIC ACTIVITY

- Paper review for Springer Nature.
- Paper review for IEEE BIBM.