Sajal Das

ML & DL Researcher — Data Analyst

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Education

Jan 2019 - Mar 2023	**BSc in Computer Science and Engineering**

Daffodil International University, Bangladesh   CGPA: 3.99/4.00

Undergraduate Thesis: *"A Context-Based Approach for Emotion Recognition from Bangla Text"*
Supervisor: Dr. Sumit Kumar Banshal

Publications

Research Interests: Computer Vision, Artificial Intelligence, Human-Computer Interaction, Computational biology and bioinformatics.

[1] S. A. Shammi, **S. Das**, N. R. Chakraborty, S. K. Banshal, and N. Nath. 2023. "A Comprehensive Roadmap on Bangla Text-based Sentiment Analysis". *ACM Trans. Asian Low-Resour. Lang. Inf. Process.* 22, 4, Article 96 (April 2023), 29 pages. doi: 10.1145/3572783

[2] **S. Das**, S. A. Shammi, and D. M. Raza 2023, "A Substantial Deep Learning Approach for Classification of Local and Coastal Fish", *Advanced Computing. IACC 2022.* Communications in Computer and Information Science, vol 1781. Springer, Cham. doi: 10.1007/978-3-031-35641-4_29

[3] S. A. Shammi, **S. Das**, M. Hasan and S. R. Haider Noori 2021, "FishNet: Fish Classification using Convolutional Neural Network", *2021 12th International Conference on Computing Communication and Networking Technologies (ICCCNT)*, Kharagpur, India, 2021, pp. 1-5, doi: 10.1109/ICCCNT51525.2021.9579550.

Research Experience

Oct 2021 - Jan 2023	**Undergraduate Research** Supervisor: Dr. Sumit Kumar Banshal

Daffodil International University
- Led the creation of a comprehensive Bangla text corpus, featuring context-based annotations, to improve emotion identification in multilabel scenarios.
- Innovated an effective emotion recognition framework for Bangla, conducting thorough algorithm evaluations to optimize performance. Additionally, developed a user-friendly web application to demonstrate practical applicability.

Nov 2020 - Dec 2021	**Research Assistant**

DIU NLP & ML Research Lab, Daffodil International University
- Actively contributed to diverse data annotation projects for voice and character detection, enhancing data quality for ML models.
- Collaborated in the development and training of a Convolutional Neural Network (CNN) model, resulting in a successful conference publication.

Teaching Experience

May 2019 - Dec 2021	***Lab Assistant***, Daffodil International University

- Mentored fellow students in various academic lab courses, including Programming & Problem Solving Lab, Data Structures Lab, and Computer Networking Lab.

Sep 2020 - Jun 2022	***Instructor***, Human Resource Development Institute (HRDI)

- Delivered and developed 3 courses entitled Essential ICT Skills for University students, Adobe Premiere Pro CC Video Editing for Beginners, and Machine Learning for Beginners.

Professional Experience

May 2023 - Present | ***Junior Data Analyst***, Apon Bazaar
- Leveraged cutting-edge BI tools to drive data-driven offer promotions, delivering a remarkable 120% increase in profits.
- Employed state-of-the-art machine learning techniques for sales forecasting, achieving precise sales predictions. This strategic analysis played a pivotal role in unlocking 13.6 million BDT in product utilization.

Key Skills

Programming | Python C C++ Java

Framework | Tensorflow OpenCV Scikit-learn Streamlit Pandas Numpy Tableau Power BI

Tools | LaTeX Git SQL Amazon Web Services

Soft Skills | Leadership Hard work Dedication Adaptability Problem Solving

Selected Projects

Bike Rides - Moving Average and Heatmap   Visualize
- End-to-end data analysis project using Kaggle API, Python's pandas library, and Tableau for data visualization, yielding valuable insights and addressing complex problems through data analysis and visualization techniques.

Housing Price Prediction App   Source Code
- Boston house price prediction with RandomForest regression algorithm where user input of the features and features importance were implemented on the streamlit web application.

Volunteering Experience

- **DIU Robotics Club:** Lead an enthusiast team as President, organized two intra competition also various workshops and seminars.
- **BASIS Student's Forum - DIU Chapter:** Worked as a leader of industrial organization by hosting NASA Space Apps Challenge campus activation, ICT Awards campus activation, and etc.
- **Volunteer at Mojar School:** I've worked with underprivileged and street children, ensuring their Food, Education, Technology, and Medical treatment. Additionally, I was honored as the "Best Assist to Captain of the Ship" on Eid Utshob-2019 for my contributions.

Certifications & Honors

2023 | **Applied Data Science Lab [WorldQuant University]** (2022-2023)
Certified Data scientist of ADS Lab by completing 8 different challenging projects of data science.

2021 | **Programming for Everybody (Python) Specialization** (2020-2021)
Got the certification of the most popular Coursera course entitled Programming for Everybody where I have completed 5 courses and gathered knowledge about python.

2020 | **Networking Academy Learn-A-Thon 2020** (2020)
Got the certification of the Introduction to Cybersecurity by participating the Learn-A-Thon 2020 which was issued by CISCO.

2019 | **DIU Merit Based Scholarship** (2019-2022)
Got the scholarship for all of the 12 semester at my university based on my each academic semester results.