Sajal Das

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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, Video compression, Deep Learning, Human-computer Interaction.

[1] S. K. Banshal, **S. Das**, S. A. Shammi and N. R. Chakraborty, "MONOVAB: An Annotated Corpus for Bangla Multi-label Emotion Detection", *Data Mining and Knowledge Discovery* (Submitted). Preprint

[2] 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

[3] **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

[4] 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 Video Editing for Beginners, and Machine Learning for Beginners.

Professional Experience

Dec 2023 - Present	***Data Engineer***, Progoti Systems Ltd. (TallyKhata) • Built and optimized ETL pipelines integrating diverse data sources into PostgreSQL; led database/cloud migrations and automated data archiving to AWS S3 for cost-effective storage. • Developed KPI dashboards and user segmentation models to drive targeted marketing and executive insights; implemented fraud detection algorithms and enhanced data governance with secure access and auditing systems.
Dec 2023 - Nov 2024	***Junior Data Analyst***, AponTech Ltd. • 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 · SQL · PL/pgSQL · C · C++
Framework	Tensorflow · OpenCV · Scikit-learn · Streamlit · Pandas · Numpy · Tableau · Power BI
Tools	Linux · Docker · FASTAPI · LaTeX · Git · AWS · GCP
Soft Skills	Leadership · Hard work · Dedication · Adaptability · Problem Solving

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.