APU CHANDRAW SHILL

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 GitHub | LinkedIn | Google Scholar

East Jurain, Dhaka, 1204, Bangladesh

RESEARCH INTEREST

- Artificial Intelligence, Machine Learning, Deep Learning
- Computer Vision, Object Detection, Face Recognition, Image Classification, Image Segmentation
- Natural Language Processing, Large Language Models, LLM Security, Generative AI

EDUCATION

- **Rajshahi University of Engineering and Technology(RUET)** *January 2016 – March 2021*
  B.Sc.Engg. in CSE Rajshahi, Bangladesh
  - CGPA: 3.57/4.00 (**9th out of 131 students**)

PUBLICATIONS   C=CONFERENCE, J=JOURNAL, P=PATENT, S=IN SUBMISSION, T=THESIS

[C.1]   Shahriar Kabir Nahin, Rabindra Nath Nandi, Sagor Sarker, Quazi Sarwar Muhtaseem, Md Kowsher, **Apu Chandraw Shill**, Md Ibrahim, Mehadi Hasan Menon, Tareq Al Muntasir & Firoj Alam (2025). **TituLLMs: A Family of Bangla LLMs with Comprehensive Benchmarking**. In *Findings of the Association for Computational Linguistics: ACL 2025*, pp. 24922-24940. Association for Computational Linguistics. July 2025, Vienna, Austria. DOI: 10.18653/v1/2025.findings-acl.1279

[C.2]   **Apu Shill**, Md. Asifur Rahman(2021). **Plant Disease Detection Based on YOLOv3 and YOLOv4**. In 2021 International Conference on Automation, Control and Mechatronics for Industry 4.0 (ACMI)*, pp. 1–6. IEEE. July 2021. DOI: 10.1109/ACMI52670.2021.9528179.

WORK EXPERIENCE

- **Verbex AI [🌐]** *September 2023 - Present*
  NLP Engineer Dhaka, Bangladesh
  - Contributed to an LLM-based **Expressive Semantic Translation (EST)** system for Bengali, surpassing **Google**, **GPT-4o**, **IndicTrans2**, **Gemini-1.5-pro** translators in semantic preservation.
  - Develop a collaborative multi-agent system to generate high-quality **synthetic data** for different LLM applications.
  - Finetuned LLMs and developed voice bots for different industry-specific tasks
  - Designed sophisticated **RAG** pipeline with optimized retrieval methods and embedding methods that increase factual consistency and reduce hallucinations.
  - Developed end-to-end pipeline for Bengali intent classification in the MFI domain, benchmarking multiple BERT models (**hishab-bert-bangla**, **bangla-bert-base**, **banglabert**, **sahajBERT**), and achieving **93% F1-score**

- **BJIT Limited[🌐]** *November 2021 - August 2023*
  AI Engineer Dhaka, Bangladesh
  - **R&Ds** on different Object detection(**YOLO, MRCNN** etc) models.
  - Added classification layer on **Facenet** face recognition model to increase the face classification accuracy (achieved **98%** classification accuracy).
  - Built Face recognition system with (**VGG-Face, Facenet, ArcFace, InsightFace** etc models).
  - Implemented modified object tracking(**face tracking**) with **SORT** algorithm.
  - **R&D**, **build** and **analyze** different custom made **emotion detection** models.
  - **Accomplishment**: Achieved 1st place at the training.

- **Prime University[🌐]** *April 2021 - October 2021*
  Lecturer, Dept. of CSE Dhaka, Bangladesh
  - Conducted of theory and lab sessions and mentored the students.
  - Coordinator: Prime University Programming Club(PUPC)

RESEARCH EXPERIENCE

- **RUET[🌐]** *2019 - 2020*
  Undergraduate Research Assistant Dhaka, Bangladesh
  - Conducted research in computer vision and deep learning, applying YOLO object detection models on real-world data.
  - Collaborated with a faculty supervisor, leading to a peer-reviewed conference publication.

PROJECTS

- **Name Entity Extraction using the custom-built neural model** [⟳]
- **Bengali Person name extractor from a given sentence** [⟳]
- **Facial recognition system with OpenFace** [⟳]
- **Person re-identification with Siamese Network** [⟳]
- **Image caption generator using CNN-LSTM based custom Neural Model** [⟳]
- **Developed a Face generator by generative adversarial networks(GANs)** [⟳]

SKILLS

- **Core technologies:** AI, ML, DL, Computer Vision, Natural Language Processing, Large Language Models
- **Programming Languages:** Python, C, C++, SQL, Matlab
- **Database Systems:** MySQL, MongoDB, Google BigQuery
- **LLM Orchestrators and Frameworks:** Openai-Agents, Langchain, LangGraph, LlamaIndex, AutoGen
- **Data Science & Machine Learning Libraries:** Pytorch, Tensorflow, Numpy, Pandas, Scikit-Learn, Scipy
- **Other Tools & Technologies:** Flask, fastapi, GCP, AWS, Git, Docker, Kubernetes, etc

HONORS AND AWARDS

- **Peer Educator (2012)** *PIACT, Bangladesh*
  ◦ Certified as a Peer Educator by PIACT, Bangladesh upon successful completion of training

- **Govt. and other Scholarships** *Dhaka Board, Bangladesh*
  ◦ Government and inter-school level scholarships for outstanding achievement in **Primary** and **Secondary** levels

- **Olympiad** *Dhaka, Bangladesh*
  ◦ Participated on divisional and national levels Science, Mathematics and Astro Olympiad

CERTIFICATIONS

- **Deep Learning Specialization [⊕]** *Coursera*
- **Natural Language Processing Specialization [⊕]** *Coursera*
- **Machine Learning [⊕]** *Coursera*
- **Computer Vision Nanodegree Program [⊕]** *Udacity*
- **Data Scientist Nanodegree Program [⊕]** *Udacity*

VOLUNTEER EXPERIENCE

- **Volunteer at Somanupatik** *RUET*
  November 2017 - Present [⊕]
  ◦ Provided urgent relief and financial support, improving the living conditions and well-being of vulnerable populations

- **Peer Educator** *PIACT Bangladesh*
  July 2012 – February 2013 [⊕]
  ◦ Educated students on the dangers of smoking and addiction and how to live a healthy life.
  ◦ Increased awareness of health risks and promoted healthier choices among students.

ADDITIONAL INFORMATION

IELTS: 7.5 (L-7.5, R-8, W-6.5, S-7.5)
Interests: Traveling, Reading, Creative Writing