Mominul Islam

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🎓 Google Scholar ⓘD ORCiD ⬡ GitHub 🔗 LinkedIn

Education

BSc	**North South University**, Computer Science and Engineering	Jan. 2019 – Jun. 2023

- CGPA: 3.86/4.00 ($\approx$Top 4%)
- Distinction: Summa Cum Laude
- Major Courses:
    - Machine Learning
    - Natural Language Processing
    - Pattern Recognition & Neural Network

Experience

Intern Mar. 2024 – Present
Business Systems
Beximco Communications Limited

Graduate Assistant Jul. 2023 – Present
Department of Electrical and Computer Engineering 7 months
North South University

Undergraduate Assistant Feb. 2022 – Jun. 2023
Department of Electrical and Computer Engineering 1 year 4 months
North South University

Publications

CosSIF: Cosine similarity-based image filtering to overcome low inter-class variation in synthetic medical image datasets, ***Mominul Islam**, Hasib Zunair, Nabeel Mohammed Mar. 2024
Computers in Biology and Medicine
Paper: doi.org/10.1016/j.compbiomed.2024.108317 ↗ | Code: GitHub ↗ | IF: 7.7 (Q1)

Projects

Fine-Tuned the Pre-Trained T5 Transformer Model for Context-to-Question Generation Jan. 2024
- Code: Kaggle ↗
- Model: Hugging Face ↗
- ML Domain: Text Generation, Sequence-to-Sequence Modeling

Fine-Tuned the Pre-Trained mT5 Transformer Model for Abstractive Bengali Text Summarization Jun. 2023
- Code: GitHub ↗
- ML Domain: Text Summarization

Image-to-Image Translation via GAN to Address Class Imbalance Sep. 2022
- Ref. Code: GitHub ↗
- ML Domain: Generative Adversarial Networks
- GAN Architecture: Nvidia's StyleGAN2-ADA

Skin Lesion Classification Using Cross-Stage CNNs and Transformers Aug. 2022
- Ref. Code: GitHub ↗
- ML Domain: Binary & Multi-Class Image Classification
- Models: ConvNeXt, Swin-Transformer, ViT

Heart Disease Detection Using Machine Learning Jul. 2022
- Code: GitHub ↗
- ML Domain: Binary Classification
- Algorithms: Logistic Regression, Random Forest, Decision Tree, KNN, Naive Bayes

Honors and Awards

2022, 50% tuition waiver: in recognition of academic performance at North South University.

2020, 25% tuition waiver: in recognition of academic performance at North South University.

Skills

Programming Languages: Python, C/C++, Java

Simulation Software: Logisim, Proteus

Frameworks / Libraries: TensorFlow, PyTorch, Scikit-learn

Development Platforms: Colab, Kaggle, AWS ML

Version Control: GitHub, Git

Web: HTML, CSS, JavaScript

LLM & Multimodal-LLM Access: Gemini Pro, Gemini Vision Pro

Certificates

2023 IELTS, Overall: 7.0; Speaking: 7.5, Reading: 7.5, Writing: 7, Listening: 6.5 Certificate ↗

2022 Coursera, Deep Learning Specialization, Neural Networks and Deep Learning; Grade: 97%. Certificate ↗

References

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Dhaka, Bangladesh
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