S M Asiful Huda

smasifulhuda@gmail.com @HUDASMAsiful1 S M Asiful Huda
https://s-masif.github.io/
SM Asiful Huda

Research Interest

Trustworthy AI, Distributed systems, Intelligent networking, Reinforcement learning

Education

2025 – Present **Research Fellow, University of Naples Federico II, Italy.**
Project: *Decentralized Graph Neural Networks: Adaptation, Training and Interpretability*.

2021 – 2023 **M.E. Computer Engineering, Chosun University, South Korea.**
Thesis title: *Reinforcement learning-based offloading in unmanned aerial vehicle-aided edge computing systems*.
CGPA: 4.43/4.50 Date of Attainment: 24th February, 2023

2015 – 2019 **B.Sc. Computer Science, East West University, Bangladesh**.
Thesis title: *An improved approach for detection of diabetic retinopathy using feature importance and machine learning algorithms*.
CGPA: 2.86/4.00 Date of Attainment: 17th February, 2020

Selected Publications

Journal Articles

1. **Huda, S. M. Asiful**, M. Canzaniello, D. Annunziata, and F. Piccialli, "Graph-based federated learning for smart healthcare: A comprehensive survey," *Future Generation Computer Systems*, vol. 183, p. 108 524, 2026. DOI: 10.1016/j.future.2026.108524.
2. **Huda, S. M. A.** and S. Moh, "Deep reinforcement learning-based computation offloading in uav swarm-enabled edge computing for surveillance applications," *IEEE Access*, vol. 11, no. 1, pp. 68 269–68 285, 2023. DOI: 10.1109/ACCESS.2023.3292938.
3. **Huda, S. M. A.** and S. Moh, "Survey on computation offloading in uav-enabled mobile edge computing," *Journal of Network and Computer Applications*, vol. 201, pp. 1–26, 2022. DOI: 10.1016/j.jnca.2022.103341.

Conference Proceedings

1. **Huda, S.M.A.** and S. Moh, "A system model for task offloading in uav-enabled vehicular edge computing," in *International Conference on Convergent and Smart Systems (ICCSS 2024)*, 2024.
2. **Huda, S. M. A.** and S. Moh, "Transfer learning algorithms in unmanned aerial vehicle networks: A comprehensive review," in *Proceedings of the 11th International Conference on Smart Media and Applications (SMA 2022)*, KISM and KISTI, Saipan, USA, Oct. 2022, pp. 9–14.
3. **Huda, S. M. A.**, E. M. Mahir, A. A. Tanvir, and S. Moh, "Evaluation of machine learning models for detecting network-based intrusions," in *Proceedings of the 10th International Conference on Smart Media and Applications (SMA 2021)*, KISM and ACM, Gunsan, Korea, Sep. 2021, pp. 27–31.
4. Abdullah-All-Tanvir, E. M. Mahir, **Huda, S. M. A.**, and S. Barua, "A hybrid approach for identifying authentic news using deep learning methods on popular twitter threads," in *Proceedings of the 2020 International Conference on Artificial Intelligence and Signal Processing (AISP)*, 2020, pp. 1–6. DOI: 10.1109/AISP48273.2020.9073583.

5 **Huda, S. M. A.**, I. J. Ila, S. Sarder, M. Shamsujjoha, and M. N. Y. Ali, "An improved approach for detection of diabetic retinopathy using feature importance and machine learning algorithms," in *Proceedings of the 7th International Conference on Smart Computing & Communications (ICSCC)*, 2019, pp. 1–5. DOI: 10.1109/ICSCC.2019.8843676.

Skills

Languages	Strong reading, writing and speaking competencies for English, Bengali.
Coding	C#, Python, C++, SQL, LaTeX, …
Databases	MSSQL, PostgreSQL.
Web Dev	HTML, CSS, JavaScript, .NET, MVC, RESTful APIs
AI/Machine Learning	Data Analysis (Pandas, NumPy, Matplotlib), Python (TensorFlow, PyTorch, scikit-learn), Deep Learning (CNN, RNN, LSTM, Hybrid), Reinforcement Learning (Q-Learning, DQN, A3C), Time Series Modeling (ARIMA, LSTM, Prophet), Predictive Analytics, Generative Adversarial Networks (GANs), Large Language Models (Basic), Model Interpretability (SHAP, LIME, Explainable AI)
Specialized Skills	Feature Engineering, Hyperparameter Tuning (GridSearch, NAS), Overfitting Analysis, Model Optimization, Cross-Validation, Regularization Techniques (L1, L2), Performance Metrics (ROC, AUC, Precision-Recall)
Misc.	Academic research, training, LaTeX typesetting and publishing.

Work/Research experience

2024 – 2025 **Research Associate, Gwangju Institute of Science and Technology (GIST), South Korea**.
Projects: *ML-Enhanced Coil Design for Wireless Power Transfer in Biomedical Implants*; *TEMPRES-SMP: Hybrid Prophet-LSTM-XGBoost Model for Price Forecasting*.
Skills: Python, TensorFlow, Keras, GANs, Time Series Forecasting, Machine Learning.

Research Associate, Gwangju Institute of Science and Technology (GIST), South Korea.
Projects:
– *ML-Enhanced Coil Design for Wireless Power Transfer in Biomedical Implants*
– *A Stacked Prophet-GRU-CatBoost Framework for Precise Hourly System Marginal Price Forecasting for Smart Grid Operations*
– *TimeGPT-XGBoost based LMP Forecasting for Convergence Bidding*
Skills: Python, TensorFlow, Keras, GANs, Time Series Forecasting, Machine Learning, GRU, CatBoost, Prophet, XGBoost, TimeGPT.

2023 – 2024 **Researcher, HT Core Co., Ltd., Gwangju, South Korea**.
Project: *Development of XR-based multi-user training platform for clinical practice training.*
Skills: C#, Unity3D, Augmented Reality Glass, XR Development.

2020 – 2021 **Software Engineer, Technology and Business Solutions Ltd., Dhaka, Bangladesh**.
Project: *Development of different components (Attendance, Leave, Payroll) in an HR Management Web Application.*
Skills: ASP.NET, C#, MVC, Web Development, HR Management Systems.

Miscellaneous Experience

Awards and Achievements

2021 – 2023 **BK21 Fellow and Fully Funded Research Scholarship (KRW 21,068,000)**, *Brain Korea 21 (BK21) Program*, National Research Foundation of Korea, Ministry of Education, South Korea.

2021–2022 **Top 15% Excellent Student Scholarship (KRW 4,950,000)**, Chosun University, Gwangju, South Korea.

2019 **Travel Grant for ICSCC2019 (USD 750)**, East West University, Dhaka, Bangladesh.

Certification

2025 **IELTS Overall 7.0**. Listening: 7, Reading: 7, Writing: 7, Speaking: 6.5

2022 **Duolingo Overall 125**. Production: 125, Literacy: 130, Comprehension: 125, Conversation: 110.