Towsif Alam Chowdhury

Curriculum Vitae

CONTACT INFORMATION

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Additional Resources: Github, LinkedIn, ResearchGate

RESEARCH INTEREST

My primary field of research interest is Artificial Intelligence (AI). Within AI, I am interested in problems related to **Computer Vision**, **Artificial Neural Networks**, and **Reinforcement learning**. In particular, my research incorporates problems related to machine learning and deep learning.

EDUCATION

January 2017 - April 2021	**Bachelor of Science in Computer Science and Engineering** North South University(NSU) Dhaka, Bangladesh • **CGPA** - 3.60/4.00 • **Specialized Trail** - Artificial Intelligence

WORK EXPERIENCE

October 2021 - Present	**Lab Officer** Department of Mathematics and Physics, North South University Dhaka, Bangladesh • Independently teach 3 undergraduate lab classes • Provide consultation to students • Assist in the preparation of lab manuals • Responsible for grading and marking the students in their lab classes
May 2021 - Present	**Graduate Research Assistant (GRA)** Department of ECE, North South University Dhaka, Bangladesh • Designing algorithms based on experience replay memory and catastrophic forgetting for autonomous agents • Development of code and experimental platforms, running experiments and analyzing data using machine learning
October 2021 - January 2022	**Graduate Teaching Assistant (GA)** Department of ECE, North South University Dhaka, Bangladesh • Facilitate a discussion section or tutorial; hold weekly office hours; grade homework, programming assignments, exams, or projects; prepare answer keys or supplementary notes • Assisting faculty with record keeping, such as tracking attendance and calculating grades

March 2020 - August 2021	**Undergraduate Teaching Assistant (UGA)**
	Department of ECE, North South University
	Dhaka, Bangladesh

- Facilitate a discussion section or tutorial; hold weekly office hours; grade homework, programming assignments, exams, or projects; keep records; distribute and copy reading materials; prepare answer keys or supplementary notes
- Assisting faculty with record keeping, such as tracking attendance and calculating grades

RESEARCH EXPERIENCE

Journal Paper

- Youme, S. K., **Chowdhury, T. A.**, Ahamed, H., Abid, M. S., Chowdhury, L., & Mohammed, N. (2021). **Generalization of Bangla Sign Language Recognition Using Angular Loss Functions**. IEEE Access, 9, 165351−165365. doi:10.1109/ACCESS.2021.3134903

- Youme, S. K., **Chowdhury, T. A.**, Ahamed, H., Abid, M. S., Sohrawardi, R. B., & Siddique, S. (2021). **RER: Recycled Experience Replay, Blending Oldest Memories with Recent Selective Experiences to Improve Remembering**. *(Work-in-Progress)*

Conference Paper

- Youme, S. K., H., Abid, M. S., **Chowdhury, T. A.**, Ahamed, & Siddique, S. (2021). **Local Climate Zone Mapping using Clustering Algorithms: A case study of Dhaka, Bangladesh**. *(Under Review)*

GRANTS

Name of Grant	CTRG 2021-2022
Grant offered by	North South University, Dhaka, Bangladesh
Project Title	High performance less resource-intensive Deep Reinforcement Learning methods for applications in autonomous agents and search and rescue robotics
Grant amount	BDT 500,000
Role	Research Assistant

TECHNICAL SKILLS

Programming Languages	Python, Java, C
Familiar with	C++, CSS, HTML, SQL, Assembly, LateX, MATLAB, Flutter
Operating Systems	Windows, Linux
Libraries	PyTorch, Tensorflow, Pandas, Scikit-learn
Database Tools	Firebase, MySQL
Others	Machine learning, Deep learning, Data Science, Android Development

LANGUAGE PROFICIENCY

IELTS	8.0 (L-9, R-7, W-6.5, S-8.5)

REFERENCES

Academic and Professional references are available upon request.