

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
- Distinction - Cum Laude
- Specialized Trail - Artificial Intelligence

WORK EXPERIENCE

September 2022 - Present

Assistant Manager

Samsung R&D Institute Bangladesh

Dhaka, Bangladesh

- Providing support and guidance to engineers in developing quality ideas, and assisting in preparing the necessary documentation to file a patent application
- Analyzing large amounts of complex technical information (prior art study) from different patent databases, tech-based magazines, journals, news sites, etc., and reporting findings through proper documentation
- Assessing novelty and non-obviousness of inventions and providing appropriate feedback to inventors in order to make their inventions more patentable
- Identify and evaluate the current and future state of relevant technologies across industries as they are being developed in an in-depth assessment

April 2022 - August 2022

Intern

Samsung R&D Institute Bangladesh

Dhaka, Bangladesh

- Performing comprehensive searches in different patent databases, tech-based magazines, journals, news sites, etc., to find relevant prior arts and provide feedback through documentation
- Planning and organizing technology workshops and innovation contests

May 2021 - May 2022

Research Assistant

Department of ECE, North South University
Dhaka, Bangladesh

- Analyzing different research methodologies and designing algorithms
- Development of code and experimental platforms, running experiments and analyzing data using machine learning

October 2021 - April 2022

Lab Instructor

Department of Mathematics and Physics, North South University
Dhaka, Bangladesh

- Independently teach undergraduate lab classes and provide consultation to students
- Assist in the preparation of lab manuals and responsible for grading and marking the students in their lab classes

March 2020 - January 2022

Teaching Assistant

Department of ECE, North South University
Dhaka, Bangladesh

- Facilitate discussion sections or tutorials; hold weekly office hours; grade homework, programming assignments, exams, or projects; keep records; 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., Abid, M. S., **Chowdhury, T. A.**, Ahamed, H., & Siddique, S. (2022). **Local Climate Zone Mapping Using Clustering Algorithms: A Case Study of Dhaka, Bangladesh**. IGARSS 2022 - 2022 IEEE International Geoscience and Remote Sensing Symposium, 3139–3142. doi:10.1109/IGARSS46834.2022.9883206

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

LANGUAGE PROFICIENCY

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

Programming Languages	Python, C
Familiar with	Java, C++, CSS, HTML, JavaScript, SQL, Assembly, LaTeX, MATLAB, Flutter
Familiar tech domains	Artificial Intelligence, AR/VR, Metaverse, IoT
Others	Machine Learning, Deep Learning, Data Science, Android Development

REFERENCES

Academic and Professional references are available upon request.