

# Towsif Alam Chowdhury

Curriculum Vitae

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## CONTACT INFORMATION

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Website: <https://towsif13.netlify.app/>

Additional Resources: [Github](#), [LinkedIn](#), [ResearchGate](#)

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## 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.

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## 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

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## WORK EXPERIENCE

April 2022 - Present

### Intern

Samsung R&D Institute Bangladesh

Dhaka, Bangladesh

- Read and analyze technical documents for prior art searching
- Perform a comprehensive search to ensure the most relevant prior art is located and provide a logical and complete search history
- Prepare a written search report setting forth the most relevant prior art identified to fulfill the search request

May 2021 - Present

### Research Assistant

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 - April 2022

### Lab Officer

Department of Mathematics and Physics, North South University

Dhaka, Bangladesh

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

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; prepare answer keys or supplementary notes
- Assisting faculty with record keeping, such as tracking attendance and calculating grades

## RESEARCH EXPERIENCE

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### 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**. (Accepted)

## GRANTS

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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

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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

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

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Academic and Professional references are available upon request.