Towsif Alam Chowdhury

CONTACT INFORMATION

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Additional Resources: Github, LinkedIn, ResearchGate

SUMMARY

Highly motivated and results-driven professional with experience in the tech industry, complemented by a strong academic background. With a solid foundation in research and innovative thinking, I am enthusiastic about solving real-world problems using cutting-edge technologies. I am also passionate about innovation and dedicated to continuous learning, striving to stay ahead in the ever-evolving world of technology.

EDUCATION

North South University, Dhaka, Bangladesh
Bachelor of Science in Computer Science and Engineering | January 2017 - April 2021
CGPA - 3.60/4.00 | **Distinction -** Cum Laude | **Specialized Trail** - Artificial Intelligence

PUBLICATIONS

Patent

- Hossain, Md. I., **Chowdhury, T. A.**, Polin, Md. Z. H., & Mahmud, S. (2023). **Method and apparatus for providing MCPTT service**. Application number: 10-2023-0103040, filed July 08, 2023. *(Patent pending)*

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. **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

WORK EXPERIENCE

Samsung R&D Institute Bangladesh, Dhaka, Bangladesh

Engineer | September 2022 - Present

- Conducting comprehensive analysis of emerging technologies in various industries to assess their current and future states.
- Analyzing large amounts of technical information (prior art study) from different patent databases and research journals to determine the patentability of solutions and reporting findings through proper documentation.
- Guiding engineers with research methodologies to develop patentable solutions and preparing the required documentation for filing a patent application.

Intern | April 2022 - August 2022

- Supported intellectual property (IP) strategy development, and assisted inventors in assessing novelty and non-obviousness to generate patentable ideas.
- Planning and organizing technology workshops and innovation activities

Department of Electrical & Computer Engineering, North South University, Dhaka, Bangladesh

Research Assistant | May 2021 - May 2022

- Developed a reinforcement learning algorithm to improve learning by using a double replay memory consisting of short-term and long-term event memories.
- Designing algorithms and developing code to analyze research methodologies, as well as running experiments and analyzing data using machine learning.

Teaching Assistant | March 2020 - January 2022

- Facilitated discussion sections or tutorials; held weekly office hours; graded homework, assignments, and exam papers; prepared answer keys or supplementary notes.
- Assisted with record keeping, such as tracking attendance and calculating grades.

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

Lab Instructor | October 2021 - April 2022

- Independently taught undergraduate lab classes and provided consultation to students.
- Assisted in preparing study manuals and was responsible for evaluating and grading the students.

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) | August 2021

TECHNICAL SKILLS

Programming languages   Python, C

Familiar with   Java, C++, CSS, HTML, JavaScript, SQL, Assembly, LateX, MATLAB, Flutter

Familiar tech domains   Artificial Intelligence, MCPTT, AR/VR, Metaverse, IoT, Health

Research domains   Machine Learning, Deep Learning, Computer Vision, Reinforcement Learning

REFERENCES

Academic and Professional references are available upon request.