

Md Mahadi Hasan Nahid

Graduate Student, University of Alberta, Canada

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RESEARCH INTERESTS

Information Retrieval (IR), Natural Language Processing (NLP), Large Language Models (LLM)

EDUCATION

MSc (Thesis) in Computing Science, University of Alberta, Canada Sep 2022 - Present

- **GPA:** 4.00/4.00; **Research Area:** *Natural Language Generation and Complex Reasoning*
- **Supervisor:** *Prof. Davood Rafiei*
- **Achievements:** *University of Alberta Graduate Recruitment Scholarship, Sep 2022*

BSc (Engg.) in CSE, Shahjalal Univ. of Sci. and Tech.(SUST), Bangladesh Jan 2011 - Dec 2015

- **GPA:** 3.82/4.00; **Class Position:** *1st / 54 Students*
- **Achievements:** *Vice Chancellor Award - 2020, Prime Minister Gold Medal - 2016*

SELECTED PUBLICATIONS

Nahid, Md Mahadi Hasan et al. (2016). “A noble approach for recognizing Bangla real number automatically using CMU Sphinx4”. In: *2016 5th International Conference on Informatics, Electronics and Vision (ICIEV)*. IEEE, pp. 844–849.

Nahid, Md Mahadi Hasan et al. (2017). “Bengali speech recognition: A double layered LSTM-RNN approach”. In: *Computer and Information Technology (ICCIT), 2017 20th International Conference of*. IEEE, pp. 1–6.

Khan, Shomi et al. (2018). “Improving Answer Extraction For Bangali Q/A System Using Anaphora-Cataphora Resolution”. In: *International Conference on Innovation in Engineering and Technology (ICIET)*. IEEE.

Ritu, Zakia Sultana et al. (2018). “Performance Analysis of Different Word Embedding Models on Bangla Language”. In: *International Conference on Bangla Speech and Language Processing(ICBSLP), 21-22 September, 2018*. IEEE.

Monisha, Syeda Tamanna Alam et al. (2019). “Classification of Bengali Questions Towards a Factoid Question Answering System”. In: *1st International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT-2019)*. IEEE, pp. 660–664.

Sarker, Sourav et al. (2019). “Bengali Question Answering System for Factoid Questions: A statistical approach”. In: *International Conference on Bangla Speech and Language Processing(ICBSLP), 27-28 September, 2019*. IEEE.

Azad, Md Ali et al. (2020). “Bangla Handwritten Character Recognition Using Deep Convolutional Autoencoder Neural Network”. In: *2020 2nd International Conference on Advanced Information and Communication Technology (ICAICT)*. IEEE, pp. 295–300.

Sarker, Soumik et al. (2020). “Word Completion and Sequence Prediction in Bangla Language Using Trie and a Hybrid Approach of Sequential LSTM and N-gram”. In: *2020 2nd International Conference on Advanced Information and Communication Technology (ICAICT)*. IEEE, pp. 162–167.

Azad, Md Ali et al. (2021). “Zilla-64: A Bangla Handwritten Word Dataset Of 64 DistrictsName of Bangladesh and Recognition Using Holistic Approach”. In: *2021 International Conference on Science & Contemporary Technologies (ICSCT)*. IEEE, pp. 1–6.

Foysal, Towhid Ahmed et al. (2021). “Bangla-ExtraSum: Comparative Analysis of Different Methods in Automated Extractive Bengali Text Summarization”. In: *2021 5th International Conference on Electrical Engineering and Information & Communication Technology (ICEEICT)*. IEEE, pp. 1–6.

Shahrear, Pabel et al. (2021). “Prediction and mathematical analysis of the outbreak of coronavirus (COVID-19) in Bangladesh”. In: *Results in Applied Mathematics* 10, p. 100145.

Das, Kalyan et al. (2023). “Transmission Dynamics and Control of COVID-19: A Mathematical Modelling Study”. In: *Journal of Applied Nonlinear Dynamics* 12.2, pp. 405–425.

CONFERENCE REVIEW

Subreviewer SIGIR 2023, CIKM 2023, ICBSLP 2019, ICERIE 2019

ACHIEVEMENTS AND AWARDS

Alberta Machine Intelligence Institute (Amii) Talent Bursary, Amii 2023
– Upperbound AI Conference, 2023

University of Alberta Graduate Recruitment Scholarship Sep 2022
– Awarded by the University of Alberta for excellent academic background.

Runner Up Award - AIForBangla Feb 2022
– Awarded By AIforBangla season 1, which is a national project contest focusing on the Bangla NLP research funded by the government of Bangladesh.
– Received this award for developing a toolkit for Bangla Natural Language Processing called 'SUST Bangla NLP Toolkit (SBNLTK)'. I was the mentor of this project. [\[link\]](#)

Vice Chancellor Award - 2020 2020
– Awarded By SUST. Received this award for outstanding academic results and being top among all the students of the School of Applied Sciences and Technology, (SUST).

IEEE Honorable Mention Award, Awarded by CAICT Conference 2020 2020
– Our paper was one of the top 5 papers at this conference in the domain of NLP-ML.

Prime Minister Gold Medal - 2016 2018
– Received this award for outstanding academic excellence.
– 141 students from all over the country are awarded for securing the highest marks / CGPA in their respective faculties. [\[link \(page-23\)\]](#)

ICPC World Final Contest 2018 - 2019
– Beijing, China 2018: 56th Position, Participated as Co-trainer.
– Porto, Portugal 2019: Honorable Mention, Participated as Co-trainer.

University Scholarship from SUST 2012-2015
– Awarded by SUST, for achieving the best results for every academic year.

Bangladesh Government's Ministry of Education Scholarship 2011
– Received this scholarship for the academic result of the HSC Board Examination.

TEACHING AND RESEARCH EXPERIENCE

- Graduate Research Assistant Fellow, University of Alberta, Canada** May 2023 - present
- Graduate Research Assistant Fellowship (GRAF), Summer 2023
- Graduate Teaching Assistant, University of Alberta, Canada** Sep 2022 - present
- **Course: CMPUT 291** - File and Database Management (Fall 2022 and Winter 2023)
 - Conduct the lab sessions and provide explanations about the lab tasks
 - Assist the students with their lab tasks. Grade assignments and lab quizzes and provide feedback
- Faculty Member, Shahjalal Univ. of Sci. and Tech. (SUST), Bangladesh** Sep 2017 - Aug 2022
- **Course:** OOP, Communication Engineering, Introduction to Computer Language
 - Mentored 12 undergrad students on their final year research projects.
 - Mentored 3 SUST Programming Teams for different programming contests
- Research Coordinator, SUST NLP Lab** Jan 2018 - Aug 2022
- Collaborate research projects on Bangla QA and Bangla Document Summarization.
- Research Assistant, Department of Computer Science and Engineering, SUST** Apr 2013 - Dec 2013
- **Supervisor:** *Professor Dr. M. Abdullah Al Mumin*
 - **Contributions:** Building an English-Bangla Parallel Corpus for Statistical Machine Translation.

OTHER EXPERIENCE

- Core Member, Center for Research, Testing and Consultancy, CSE, SUST** Jan 2020 - Aug 2022
- **Project:** Digital Sylhet City - Automation of Sylhet M A G Osmani Medical College Hospital (One of the largest government hospital in Sylhet Division)
 - **Role:** Assist the team in requirements engineering and designing the architecture of the product.

SELECTED PROJECTS AND GRANTS

- A New Approach for Bengali Document Summarization** Aug 2020 - Jul 2021
- **Project Code:** AS/2020/1/30, SUST Research Center (2020-21)
 - **Role:** Co-investigator; **Grant Amount:** BDT 175,000 (USD 2065)
- Ankur: A VR based E-Learning application to train people with Autism** Aug 2019 - Jul 2020
- **Project Code:** AS/2019/1/19, SUST Research Center (2019-20)
 - **Role:** Principle Investigator; **Grant Amount:** BDT 150,000 (USD 1700)
- SUST Admission Chatbot** Aug 2018 - Jul 2019
- **Project Code:** AS/2018/1/10, SUST Research Center (2018-19)
 - **Role:** Co-Investigator; **Grant Amount:** BDT 150,000 (USD 1700)

SKILLS

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|---------------|------------------------------------|
| Language | Python, C/C++, Java, SQL |
| Frameworks | PyTorch, Tensorflow, Pandas, Keras |
| Utilities | Git, Jupyter Notebook, LaTeX |
| Communication | English, Bengali |

EXTRA CURRICULAR ACTIVITIES

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|-------------------------------------|---|
| Undergraduate Student Mentor | Department of CSE, SUST (Sep 2021-Aug 2022) |
| Advisor | SUST ACM Student Chapter (Sep 2019-Aug 2022) |
| Program Committee Member | ICBSLP Conference (2018, 2019) |
| Organizer | SUST CSE Curnival (2018, 2019); SUST Techfest (2019) |
| Executive Member | CSE Alumni Association , SUST (2018-2021) |