

Updated: May 29, 2020

Contact Information

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Website: <https://aaneloy.netlify.app/>
Additional Resource: [LinkedIn](#), [Google Scholar](#), [Research Gate](#), [GitHub](#), [Kaggle](#)

Career Interest

Seeking a position in Data Science, Data Analysis, Algorithms, Data Structure and Robotics where extensive experience will be further developed and utilized. Skilled in Machine Learning, Probabilistic Statistics, Industrial Problem-Solving, Business Data visualization and Analysis and creative thinking. Commitment to providing support and essential information about trends to companies in a variety of industries and academics.

Research Interest

My primary field of research interest is Artificial Intelligence (AI). Within AI, I am interested in problems related to Probabilistic Modeling, Applied Machine Learning, Health Data Mining, and interdisciplinary applications of Computer Vision in Robotics. My research revolves around elegant modeling of problems of practical interest, understanding the fundamental principles of statistical machine learning, designing scalable algorithms with guarantees, and analyzing their computational and information-theoretic properties rigorously. Moreover, with the help of modeling and scheme of AI, I have also a substantial overview in the field of Robotics, more precisely – Design Analysis, Path Finding, Robot Vision, Object Tracking and application of Probabilistic Models to the Segmentation problem.

Education

North South University (NSU)
Bashundhara R/A, Dhaka 1229, Bangladesh

January 2015 – December 2018

- **Bachelor of Science in Computer Science and Engineering (BS CSE)**
- **Specialized Trail**– Artificial Intelligence
- **Thesis**– Early Health Prediction System for ICU Patient using Machine Learning and Cloud Computing

Govt. Ananda Mohan College
Mymensingh Sadar 2200, Mymensingh, Bangladesh

July 2012 - July 2014

- **Higher Secondary School Certificate (HSC)**
- **(GPA 5.00/5.00)**
- **Group - Science**

Mymensingh Zilla School
Mymensingh Sadar 2200, Mymensingh, Bangladesh

January 2005 – March 2012

- **Secondary School Certificate (SSC)**
- **(GPA 5.00/5.00)**

- **Group - Science**

Employment History

Information Analyst

Advanced Chemical Industries (ACI Ltd.)

January 2020 – Present

ACI Centre 245, Tejgaon Industrial Area, Dhaka-1208, Bangladesh.

- Interpret and translate data into valuable information using different machine learning models for effective analysis purposes.
- Analyze client's requirements to provide suggestions in order to deliver products that are aligned with the ultimate business requirement.
- Oversee implementation of a new system, support users in adapting to the system by ensuring proper training and guidelines.

Laboratory Officer

Dept of ECE, North South University

May 2019 – Present

Bashundhara R/A, Dhaka 1229, Bangladesh.

- Responsible for conducting the lab classes of the enrolled students.
- Lab Coursework includes implementing algorithms and theoretical concepts with respective programming languages as deemed necessary by the course curriculum.
- Also responsible for grading and marking the students in their lab classes.

Undergraduate Teaching Assistant (UGA)

Dept of ECE, North South University

January 2019 – May 2019

Bashundhara R/A, Dhaka 1229, 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, and act as the course web-master.
- Assisting faculty with record keeping, such as tracking attendance and calculating grades.

Founding Secretary and Vice President

NSU ACM Student Chapter

December 2017 – January 2019

SAC (10th Floor), North South University,

Bashundhara R/A, Dhaka 1229, Bangladesh.

- As a Secretary and Vice-Chair, I have managed all the administrative workflows, operational duties and workshop during the fiscal year 2017-2019. I also received [Recognition of Service Award](#) from ACM NY HQ.
- [Certified Trainer](#) of Robotics and Data Science of the NSU ACM Student Chapter from February 2017 to 2019.
- Undertook workshops on Machine Learning, Basic Robotics, PCB Design and Robot Operating System (ROS).

Teaching**North South University**

Bashundhara R/A, Dhaka 1229, Bangladesh.

January 2019 – Present

Course

CSE231L Digital Logic design

CSE332L Computer Organization and Architecture

CSE482L Internet and Web Technology

CSE115L Programming Language I

CSE331L Microprocessor Interfacing & Embedded System

CSE311L Database Management System

Semester

Summer 2019

Summer 2019

Summer 2019

Summer 2019

Spring 2019, Fall 2019, Spring 2020

Spring 2020

**Academic
Honours and
Awards**

- Certified Mentor of [Robotics](#) and [Machine learning](#).
- Won the **1st Runner Up** prize for the Undergraduate Capstone Project, Capstone Innovation Challenge, Season 6, 2018.
- Runner up - IEEE day Hackathon 2017.
- Junior Board Scholarship (Class 8) for excellent academic result.

Technical Skills

Programming and Scripting Languages: Python, C++, C, HTML, XML, SQL, Julia, R, Assembly, Windows Azure, Shell Scripting.

Operating Systems: Windows, Linux.

Data Science Tools: Tableau, SPSS, MATLAB, Apache Spark. Anaconda

Platforms: IBM Cloud, IBM Watson Studio, Jupyter, PyCharm, GIT, UNIX Systems, Docker, Arduino.

Database Tools: Oracle, MySql, DB2, CloudScape, MS-Access

**Workshop or
Seminar
Conducted**

- **Workshop on Robotics (Robo101):** NSU ACM Student Chapter, Conducted during - **Spring 2017, Fall 2017, Summer 2018.**
- **Workshop on Intro to Machine Learning:** NSU ACM Student Chapter - **Fall 2018**
- **Hour of Code:** Association for Computing Machinery (ACM) - **Fall 2018**

**Professional
Activities**

- **IEEE Student Member:** 94560705
- **ACM Student Member:** 9654439

Research Facility

Founder and Principal Investigator, **TF-ROS** Lab
North South University, Bashundhara R/A, Dhaka 1229, Bangladesh.

February 2019 – Present

- **Members:** 6 undergraduate students of North South University.
- **Funding:** BDT 500000 by Desire Glance Group for the fiscal year 2018-2019.

**Language
Proficiency**

IELTS: 7.5 (W,R-7.00, L,S-8.00)

**Reviewing
Experience****Conference:**

- *2020 International Symposium on Automation, Information and Computing* (**ISAIC 2020**). Beijing Jiaotong University, Beijing, China, December 2nd-4th, 2020.
- *2019 The Fourth International Conference on Economic and Business Management* (**FEEM 2019**). China October 19-21, 2019.

Journals:

- **CAAI Transactions on Intelligence Technology (2020)**
- **IEEE Access (2020)**

Book Published • **“Let’s make Robots”**, Publisher - **Pinnacle Media**, Publishing Year – **November 2017**. ISBN 978-984-34-3061-8.

Publications

Refereed Journal:

- **Neloy, A. A.**, Bindu, R. A., Alam, S., Haque, R., Khan, M. S. A., Mishu, N. M., & Siddique, S. (2020, November). *Alpha – N_{V2}: Shortest Path Finder Automated Delivery Robot with Real-Time Object Detection and Avoiding System*. Accepted for publication in – *Vietnam Journal of Computer Science (VJCS)*, Issue-7, No 4, Nov 2020.
- **Neloy, A. A.**, Arman, A., Islam, M. S., & Motahar, T. (2018). Automated Mobile Robot with RFID Scanner and Self Obstacle Avoiding System. *International Journal of Pure and Applied Mathematics*, 118(18), 3139-3150.

Book Chapter:

- **Neloy, A. A.**, Bindu, R. A., Alam, S., Haque, R., Khan, M. S. A., Mishu, N. M., & Siddique, S. (2020, March). Alpha-N: Shortest Path Finder Automated Delivery Robot with Obstacle Detection and Avoiding System. In *Asian Conference on Intelligent Information and Database Systems*, (pp. 202-213). Springer, Cham. DOI : https://doi.org/10.1007/978-3-030-41964-6_18
- **Neloy A.A.**, Shafayat Oshman M., Islam M.M., Hossain M.J., & Zahir Z.B. (2019) Content-Based Health Recommender System for ICU Patient. In: Chamchong R., Wong K. (eds) *Multi-disciplinary Trends in Artificial Intelligence*. MIWAI 2019. Lecture Notes in Computer Science, vol 11909. Springer, Cham. DOI : https://doi.org/10.1007/978-3-030-33709-4_20

Peer-Reviewed Conference Paper:

- Bindu, R. A., **Neloy, A. A.**, Alam, S., Moni, N. J., & Siddique, S. (2019, November). Sigma-3: Integration and Analysis of a 6 DOF Robotic Arm Configuration in a Rescue Robot. In *2019 4th International Conference on Robotics and Automation Engineering (ICRAE)* (pp. 6-11). IEEE. DOI : <https://doi.org/10.1109/ICRAE48301.2019.9043799>
- **Neloy, A. A.**, Alam, S., Bindu, R. A., & Moni, N. J. (2019, April). Machine Learning based Health Prediction System using IBM Cloud as PaaS. In *2019 3rd International Conference on Trends in Electronics and Informatics (ICOEI)* (pp. 444-450). IEEE. DOI : <https://doi.org/10.1109/ICOEI.2019.8862754>
- Bindu, R. A., Alam, S., & **Neloy, A. A.** (2019, March). A Cost-Efficient Multipurpose Service Robot using Raspberry Pi and 6 DOF Robotic Arm. In *Proceedings of the 2019 2nd International Conference on Service Robotics Technologies* (pp. 16-22). DOI : <https://doi.org/10.1145/3325693.3325701>
- **Neloy, A. A.**, Haque, H. S., & Ul Islam, M. M. (2019, February). Ensemble Learning Based Rental Apartment Price Prediction Model by Categorical Features Factoring. In *Proceedings of the 2019 11th International Conference on Machine Learning and Computing* (pp. 350-356). DOI : <https://doi.org/10.1145/3318299.3318377>

Preprint:

- Bindu, R. A., **Neloy, A. A.**, Alam, S., & Siddique, S. (2020). 3-Survivor: A Rough Terrain Negotiable Teleoperated Mobile Rescue Robot with Passive Control Mechanism. *arXiv preprint arXiv:2003.05224*.
- **Neloy, A. A.**, Oshman, M. S., Islam, M. M., Hossain, M. J., & Zahir, Z. B. (2019). Early Health Prediction System for ICU Patient using Machine Learning and Cloud Computing (No. 1590). *EasyChair*.

Personal	Citizenship	Bangladeshi
	Marital Status	Married
	Love to	Walk/Run/Playing Games, read books, Cook for others (occasionally), Travel

References	Academic and Professional reference available upon request.
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