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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 understanding the fundamental principles of statistical machine learning, designing scalable algorithms with guarantees, and rigorously analyzing their computational and information-theoretic properties. 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) January 2015 – December 2018
Bashundhara R/A, Dhaka 1229, Bangladesh

- **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 July 2012 - July 2014
Mymensingh Sadar 2200, Mymensingh, Bangladesh

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

Mymensingh Zilla School January 2005 – March 2012
Mymensingh Sadar 2200, Mymensingh, Bangladesh

- **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														
	<table><tr><th>Course</th><th>Semester</th></tr><tr><td>CSE231L Digital Logic design</td><td>Summer 2019</td></tr><tr><td>CSE332L Computer Organization and Architecture</td><td>Summer 2019</td></tr><tr><td>CSE482L Internet and Web Technology</td><td>Summer 2019</td></tr><tr><td>CSE115L Programming Language I</td><td>Summer 2019</td></tr><tr><td>CSE331L Microprocessor Interfacing & Embedded System</td><td>Spring 2019, Fall 2019, Spring 2020, Summer 2020</td></tr><tr><td>CSE311L Database Management System</td><td>Spring 2020, Summer 2020</td></tr></table>	Course	Semester	CSE231L Digital Logic design	Summer 2019	CSE332L Computer Organization and Architecture	Summer 2019	CSE482L Internet and Web Technology	Summer 2019	CSE115L Programming Language I	Summer 2019	CSE331L Microprocessor Interfacing & Embedded System	Spring 2019, Fall 2019, Spring 2020, Summer 2020	CSE311L Database Management System	Spring 2020, Summer 2020	
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CSE115L Programming Language I	Summer 2019															
CSE331L Microprocessor Interfacing & Embedded System	Spring 2019, Fall 2019, Spring 2020, Summer 2020															
CSE311L Database Management System	Spring 2020, Summer 2020															
Academic Honours and Awards	<ul style="list-style-type: none">• 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	<p>Programming and Scripting Languages: Python, C++, C, HTML, XML, SQL, Julia, R, Assembly, Windows Azure, Shell Scripting.</p> <p>Operating Systems: Windows, Linux.</p> <p>Data Science Tools: Tableau, SPSS, MATLAB, Apache Spark. Anaconda</p> <p>Libraries: TensorFlow, PyTorch, Keras, Pandas, Scikit-learn, Scipy, NLTK</p> <p>Platforms: IBM Cloud, IBM Watson Studio, PyCharm, GIT, Docker, Arduino.</p> <p>Database Tools: Oracle, MySQL, DB2, MS-Access</p>															
Workshop or Seminar Conducted	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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														
	<ul style="list-style-type: none">• 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	<p>Conference:</p> <ul style="list-style-type: none">• <i>2020 International Symposium on Automation, Information and Computing</i> (ISAIC 2020). Beijing Jiaotong University, Beijing, China, December 2nd-4th, 2020.• <i>2019 The Fourth International Conference on Economic and Business Management</i> (FEBM 2019). China October 19-21, 2019. <p>Journal:</p> <ul style="list-style-type: none">• 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., Alam, S., Bindu, R. A., (2020, August). **Design and Implementation of a Novel Hybrid Rental Apartment Recommender System**. *Advances in Data Science and Adaptive Analysis*. DOI: <https://doi.org/10.1142/S2424922X2041003X>
- 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**. *Vietnam Journal of Computer Science (VJCS)*, Issue-7, No 4, Nov 2020. DOI: <https://doi.org/10.1142/S2196888820500219>
- 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. ([pdf](#))

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.