

# Md Nazmul Islam

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## Research Interests

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Robotics, Imaging system, Computer vision, Human-Machine Interface, Control system, Machine learning, Deep learning, Reinforcement Learning, Healthcare AI, Explainable AI, , Biomedical signal analysis, Data mining, IOT.

## Education

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### Kent state University

Kent, Ohio, USA

PHD IN MECHATRONICS, ROBOTICS AND AUTOMATION ENGINEERING

August, 2024 - continuing

- CGPA: NA
- Academic Standing: NA
- Thesis: NA
- Advisor: Dr. Tao Shen

### BRAC University

Dhaka, Bangladesh

MASTER OF SCIENCE IN COMPUTER SCIENCE AND ENGINEERING

April, 2019 - February, 2022

- CGPA: 4.00/4.00
- Academic Standing: Highest Distinction
- Thesis: Demystify the Blackbox Model of Automated Detection of Lung and Kidney Diseases from X-ray and CT Radiographs
- Advisor: Dr. Md Golam Rabiul Alam

### Chittagong University of Engineering and Technology (CUET)

Chittagong, Bangladesh

BACHELOR OF SCIENCE IN ELECTRICAL AND ELECTRONIC ENGINEERING

April, 2007 - May, 2011

- CGPA: 3.18/4.00
- Merit Position: 46th
- Thesis: Energy and power Pricing Analysis of Bangladesh 2010-2011
- Advisor: Dr. Shamsul Alam

## Publications

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### CONFERENCE PAPER

**Md Nazmul Islam**, Mehedi Hasan, Abdul Kadar Muhammad Masum, Md Zia Uddin, Md. Golam Rabiul Alam. 2022. Demystify the Black-box of Deep Learning Models for COVID-19 Detection from Chest CT Radiographs. 2021 24th International Conference on Computer and Information Technology (ICCIT), 28 January 2022.

### JOURNAL PAPER

**Md Nazmul Islam**, Mehedi Hasan, Md. Kabir Hossain, Md. Golam Rabiul Alam, Md Zia Uddin, Ahmet Soylu. 2022. Vision Transformer and Explainable Transfer Learning Models for Auto Detection of Kidney Cyst, Stone and Tumor from CT-Radiography. Nature Scientific Reports, 06 July 2022.

**Md Nazmul Islam**, Md. Golam Rabiul Alam, Tasnim Sakib Apon, Md. Zia Uddin, Nasser Allheeib, Alaa Menshawi, Mohammad Mehedi Hassan. 2023. Interpretable Differential Diagnosis of Non-COVID Viral Pneumonia, Lung Opacity and COVID-19 Using Tuned Transfer Learning and Explainable AI. MDPI Healthcare, 31 January 2023.

## Test score

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2023,  
February **TOEFL**, Total : 100, Reading: 27, Listening : 26, Speaking : 24, Writing : 23

2023,  
October **GRE**, Quantitative Reasoning: 161, Verbal Reasoning : 150, Analytical Writing : 3.5

## Personal Details

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*Date of Birth* : 01-Sep-1989

*Nationality* : Bangladeshi

*Current Location* : Dhaka, Bangladesh

## Programming Skills and Tools

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C, Python, NumPy, Pandas, Scikit-learn, TensorFlow, Keras, Javascript, React, arduino, proteus

## Professional Experience

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August,  
2024  
-present **Graduate Assistant, Kent state University, Duties/Responsibilities** : 1) To perform research on medical robotics. 2) Taking and assisting lab in Signal and Electronics

2021-  
August,  
2024 **Field Technical Service Specialist, Hugo Surgical Robotics, Medtronic, Duties/Responsibilities** : 1) To give field service support for Hugo Robotic systems. 2) Responsible for Installation and commissioning. 3) Responsible for uptime of Hugo Robotic system. 4) Coordination of logistics related to Hugo spares. 5) Up-keeping of Demo Hugo system. 6) Regularly visit existing customers and maintain network for post sales service etc. to reinforce the relationship and understand service gaps. 7) Plan for spares inventory to cater to the services of Hugo Robotics in ISC region. 8) Responsible for completion of any FCA and quality guidelines from BU 9) Maintaining the dashboard of service activities. 10) Responsible for O-arm and Navigation machine

2013-2021 **Field Service Engineer, CT and PET CT - Philips HealthCare, Duties/Responsibilities** : 1) Installation, Preventive Maintenance, Modification upgrades, Trouble shooting and Repair of CT/AMI machine. 2) Installation, Preventive Maintenance, Modification upgrades, Trouble shooting and Repair of Multi modality Workstation(ISP,EBW). 3) Maintain service records/ reports and maintain compliance. 4) Assist to Achieve CP%, Revenue and AR as per regional target.

2012-2013 **Executive Engineer, MRI and X-ray, Siemens Bangladesh Ltd. , Duties/Responsibilities** : Servicing, Maintenance and Installation of MRI and support for heliophos-D, and orthophos (Sirona)

2012-2013 **Lecturer, EEE (Part-Time), Daffodil International University, Duties/Responsibilities** : Taking lab and classes of Digital Signal Processing, Electrical Circuit, Electronic circuit-1

## Certifications

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### ACADEMIC COURSES CERTIFICATION- WORKERA

*Machine Learning Researcher*, Issued by: Workera, March 2022.

### ACADEMIC COURSES CERTIFICATION-COURSERA

*Convolutional Neural Networks* | DeepLearning.AI

*Convolutional Neural Networks in TensorFlow* | DeepLearning.AI

*Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization* | DeepLearning.AI

*Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning* | DeepLearning.AI

*Structuring Machine Learning Projects* | DeepLearning.AI

*AI for Medical Diagnosis* | DeepLearning.AI

*Probability and Statistics: To p or not to p?* | University of London

*Python Data Structures* | University of Michigan

## PROFESSIONAL CERTIFICATION

*Hugo RAS(Robotic Assisted Surgery) training* , North Haven, Connecticut, USA, 2nd November 2021.

*Remote Technical Field Service Training for the Hugo RAS System*,June 2021

*LEAN Basic Training at Philips Healthcare, Mumbai, India*, August 2018.

*PET-CT(Ingenuity TF PET CT differences) at Philips Healthcare Academy, Cleveland, the USA* , September 2017

*PET CT(NM Gemini TF Series PET Table GSU with Truflight Select),Philips Healthcare Academy, Cleveland, the USA* , Sep. 2017.

*Intellispace Portal R10 Server at Gurgaon Philips, India*, August 2018.

*CT Scanner (Brilliance Air Family) at Singapore Learning Centre, Philips Singapore*, July 2015.

*CT Scanner(Brilliance/Ingenuity/iCT Gateway) at Singapore Learning Centre, Philips Singapore* , July 2015.

*CT Scanner(CT advance training MX-16) at Professor Holst Centre, the Netherlands*, August 2014.

*O-arm imaging technical training* , Hyderabad, India, February 2022.

## References

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### REFERENCE-01

Dr. Md Golam Rabiul Alam  
Professor  
Department of Computer Science and Engineering  
BRAC University  
Dhaka, Bangladesh  
e-mail: rabiul.alam@bracu.ac.bd

### REFERENCE-02

Sanjay Guha Ray  
Proactive Monitoring Engineer - CT  
Philips Healthcare  
Kolkata, India  
e-mail: sanjay.guharay@philips.com