




## Research Objective

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Currently doing a PhD in Computer Science with a focus on the applications of artificial intelligence (AI) and machine learning (ML) in healthcare. Particularly interested in using machine learning, data science, and artificial intelligence to create novel approaches for enhancing patient outcomes, lowering healthcare costs, and creating techniques for quicker, more accurate diagnosis. Dedicated to being an enthusiastic team player who is driven to advance healthcare technologies.



## Education

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- 2022 – Present  **Ph.D. in Computer Science**, University of Delaware, USA
- 2017 – 2018  **Individual Modules under Erasmus+ KA1 Mobility Program**, Staffordshire University, United Kingdom  
Thesis title: *Spatio-temporal analysis of large air pollution data.*
- 2014 – 2018  **BSc in Computer Science and Engineering**, United International University, Dhaka, Bangladesh

## Employment History


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- 08/2022 – Present  **Graduate Teaching Assistant**, Department of Computer and Information Sciences, University of Delaware, US.
  - I am currently serving as an **Infrastructure Teaching Assistant (TA)**, responsible for assisting the Academic Advisor with the development of a web-based application designed to streamline the process of sending offer letters to a diverse group of TAs while efficiently managing their office hours scheduling in addition to other functionalities. My work involves leveraging a tech stack that includes HTML, CSS, JavaScript, FastAPI, Jinjaz and Python to create a user-friendly and automated system that enhances the TA onboarding experience and ensures seamless communication with teaching staff.
- 06/2023 – 08/2023  **Instructor (On Contract)**, Department of Computer and Information Sciences, University of Delaware, US.
  - As the instructor for the summer-23 course, CISC181- Introduction to Computer Science II, I was responsible for giving lectures to students, grading the assessments, and designing and updating the curriculum.

## Employment History (continued)

05/2019 – 08/2022  **Lecturer**, Department of Computer Science and Engineering, Brac University, Dhaka, Bangladesh.


- Instructed and mentored junior and senior year undergraduate students.
- Led a team of faculty members for the *CSE340: Computer Architecture* and the *CSE360: Computer Interfacing* labs, ensuring smooth and efficient coordination.
- Improved the quality of the curriculum for CSE340 by modifying it to align with outcome-based-education principles.
- Contributed to the development of the *CSE461: Intro to Robotics* curriculum, ensuring that it met the highest academic standards as well as follows the OBE principles.
- Received positive feedback from students and colleagues for my teaching style, organization, and communication skills.

02/2019 – 05/2019  **IT Executive**, Bangladesh Institute of Journalism and Electronic Media, Dhaka, Bangladesh.







- Managed IT-related tasks such as organizational website management, document management, etc.

## Research Publications

### Conference Proceedings



- 1 R. Poulain, M. F. Bin Tarek, and R. Beheshti, “Improving fairness in ai models on electronic health records: The case for federated learning methods,” in *Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency*, ser. FAccT ’23, Chicago, IL, USA: Association for Computing Machinery, 2023, pp. 1599–1608, ISBN: 9798400701924.  DOI: 10.1145/3593013.3594102.
- 2 M. F. B. Tarek, M. Asaduzzaman, and M. Patwary, “Spatio-temporal analysis of large air pollution data,” in *2018 10th International Conference on Electrical and Computer Engineering (ICECE)*, IEEE, 2018, pp. 221–224.

## Skills

Languages	 Strong reading, writing and speaking competencies for English, Bengali.
Coding	 Python, C, Java
Databases	 MySQL, Oracle.
Web Dev and Software Engineering	 HTML, CSS, FASTAPI, JINJA2.
Machine Learning	 ML libraries like scikit-learn, pytorch
Misc.	 Academic research, teaching, $\LaTeX$ typesetting and publishing.

## Projects



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- 2021  **Skin Cancer Classification with Ensemble of Deep Convolutional Neural Networks:** In this work, deep convolution networks e.g., VGG-16, Efficient NetB3 and ResNet-50 were used to identify skin cancer from dermoscopic images.
- 2017  **BDDoctors:** An online doctor appointment system with a database. Users can easily book appointments with preferred doctors according to their location, specialty, etc.



## Awards, Achievements and Certifications

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### Awards and Achievements

- 2018  **Summa Cum Laude**, BSc in CSE, United International University, Dhaka, Bangladesh.
- 2017  **Participated in the Erasmus+ KA1 mobility program (Funded by Erasmus+ EU)** to study for 6 months at Staffordshire University, Stoke-on-Trent, the United Kingdom in 2017-2018.

### Certifications

- 2020  **Deep Learning Specialization.** Awarded by Coursera.
- 2017  **Web development using ASP.NET .** Awarded by CDIP (Centre for Development of IT Professionals), United International University, Dhaka, Bangladesh.

## References

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### Rahmatollah Beheshti, PhD




Assistant Professor, University of Delaware

Department of Computer and Information Sciences

Epidemiology Program (Joint)

Data Science Institute

Research Faculty, Nemours Children's Health

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