

Shanto Rahman

Lecturer • Department of Information and Communication Technology • Bangladesh
University of Professionals

547/3, East Kazi Para, Mirpur Dhaka-1207, Bangladesh

☎ (+88)015-5454-8698 | ✉ shanto.iitdu@gmail.com | 🌐 shantorahman

Education

M.Sc. in Software Engineering

- Institute of Information Technology (IIT), University of Dhaka (DU)
- CGPA: **3.98**
- Academic Rank: **2nd** Position

Dhaka, Bangladesh

Jan. 2015 – Jul. 2016

B.Sc. in Software Engineering

- Institute of Information Technology (IIT), University of Dhaka (DU)
- CGPA: **3.87**
- Academic Rank: **2nd** Position

Dhaka, Bangladesh

Jan. 2011 - Dec. 2014

Research Interest

- Computer Vision (CV)
- Artificial Intelligence (AI)/ Machine Learning/ Deep Learning
- Image Processing
- Software Engineering

Work Experience

Bangladesh University of Professionals (BUP)

Lecturer, Department of Information and Communication Technology (ICT)

Dhaka, Bangladesh

Sept. 2017 to Present

- Conducted Courses:
 - Data Structure & Algorithms
 - Digital Image Processing
 - Artificial Intelligence
 - Distributed System
 - Database Management System
 - Software Engineering
- Undergrad Thesis Supervision:
 - Topic: Computer Vision
 - Number of Students: 4
 - Topic: Software Engineering
 - Number of Students: 2

Samsung R&D Institute Bangladesh Ltd.

Sr. Software Engineer, Advanced Solution Group

Dhaka, Bangladesh

Jul. 2016 to Jul. 2017

- Worked on Fingerprint authentication in MarshMellow.
- Developed Torch for Tizen
- Worked on a project of Sales Force Automation (SFA)
- **Used Technology:** Java, Android, PHP, MySQL, MAP API, Google API, Tizen

Orion Informatics Ltd.

Software Engineer Intern

Dhaka, Bangladesh

Jan. 2014 to Aug. 2014

- Projects: BBE, HAMDAWIz
- **Used Technology:** ASP.NET, Sql Server, AJAX, Javascript, Entity framework

Research Experience

Research Summary [Google Scholar Profile]

Topics:	Image Processing, Computer Vision, Machine Learning, Deep Learning, Software Engineering
Total Articles:	15
Journal Articles:	5
Book Chapter:	1
International Conference Articles:	9
Citations:	204
h-index:	9

Publications [Journal Articles]

- [1] **Shanto Rahman**, Md Mostafijur Rahman, Mohammad Abdullah-Al-Wadud, Golam Dastagir Al Quaderi, and Mohammad Shoyaib. "An adaptive gamma correction for image enhancement." *EURASIP Journal on Image and Video Processing* 2016, no. 1 (2016): 35.
- [2] Md Mostafijur Rahman, **Shanto Rahman**, and Mohammad Shoyaib. "MCCT: a multi-channel complementary census transform for image classification." *Signal, Image and Video Processing* 12, no. 2 (2018): 281-289.
- [3] Md Mostafijur Rahman, **Shanto Rahman**, Rayhanur Rahman, BM Mainul Hossain, and Mohammad Shoyaib. "DTCTH: a discriminative local pattern descriptor for image classification." *EURASIP Journal on Image and Video Processing* 2017, no. 1 (2017): 30.
- [4] Khalid Hussain, **Shanto Rahman**, Md Mostafijur Rahman, Shah Mostafa Khaled, M. Abdullah-Al Wadud, Muhammad Asif Hossain Khan, and Mohammad Shoyaib. "A histogram specification technique for dark image enhancement using a local transformation method." *IPSI Transactions on Computer Vision and Applications* 10, no. 1 (2018): 3.
- [5] Feroz Mahmud Amil, **Shanto Rahman**, Md Mostafijur Rahman, and Emon Kumar Dey. "Bilateral Histogram Equalization for Contrast Enhancement." *International Journal of Software Innovation (IJSI)* 4, no. 4 (2016): 15-34.

Publications [International Conference Articles]

- [1] **Shanto Rahman**, Md Mostafijur Rahman, Khalid Hussain, Shah Mostafa Khaled, and Mohammad Shoyaib. "Image enhancement in spatial domain: A comprehensive study." In *17th International Conference on Computer and Information Technology (ICCIT)*, pp. 368-373. IEEE, 2014.
- [2] Feroz Mahmud Amil, Md Mostafijur Rahman, **Shanto Rahman**, Emon Kumar Dey, and Mohammad Shoyaib. "Bilateral histogram equalization with pre-processing for contrast enhancement." In *17th IEEE/ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD)*, Shanghai, China, pp. 231-236. IEEE, 2016.
- [3] SM Sofiqul Islam, **Shanto Rahman**, Md Mostafijur Rahman, Emon Kumar Dey, and Mohammad Shoyaib. "Application of deep learning to computer vision: A comprehensive study." In *5th International Conference on Informatics, Electronics and Vision (ICIEV)*, Dhaka, Bangladesh, pp. 592- 597. IEEE, 2016.
- [4] Md Mostafijur Rahman, **Shanto Rahman**, Minhas Kamal, M. Abdullah-Al-Wadud, Emon Kumar Dey, and Mohammad Shoyaib. "Noise adaptive binary pattern for face image

analysis.” In *18th International Conference on Computer and Information Technology (ICCIT)*, Dhaka, Bangladesh, pp. 390-395. IEEE, 2015.

- [5] Khalid Hussain, **Shanto Rahman**, Shah Mostofa Khaled, M. Abdullah-Al-Wadud, and Mohammad Shoyaib. “Dark image enhancement by locally transformed histogram.” In *8th International Conference on Software, Knowledge, Information Management and Applications (SKIMA)*, pp. 1-7. IEEE, 2014.
- [6] **Shanto Rahman**, and Kazi Sakib. “An Appropriate Method Ranking Approach for Localizing Bugs using Minimized Search Space.” In *13th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE)*, pp. 303-309. 2016.
- [7] **Shanto Rahman**, M.M. Rahman, and Kazi Sakib, “A Statement Level Bug Localization Technique using Statement Dependency Graph”. In *13th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE)*, (pp. 171-178). 2017
- [8] **Shanto Rahman**, Kishan Kumar Ganguly, and Kazi Sakib. “An improved bug localization using structured information retrieval and version history.” In *18th International Conference on Computer and Information Technology (ICCIT)*, pp. 190-195. IEEE, 2015.
- [9] Sadia Khan Rupa, Md Faishal Yousuf, and **Shanto Rahman**. "Contrast Enhancement using Mode-Separate Histogram Equalization." In *1st International Conference on Advances in Science, Engineering and Robotics Technology (ICASERT)*, pp. 1-6. IEEE, 2019.

Publications [Book Chapter]

- [1] **Shanto Rahman**, Rahman Md. Mostafijur, Sakib Kazi, “An Improved Method Level Bug Localization Approach Using Minimized Code Space”, *Evaluation of Novel Approaches to Software Engineering*, pp. 179-200, Springer, (2016): 703

Skills

Programming Languages	C, C++, MATLAB, Java, Android, .NET, C#, Python, PHP, Assembly, Javascript, SQL
Framework	Laravel 5.0, Codignitor, Entity Framework, ASP.NET, MVC 3, Angular JS, Hadoop
Tools	MATLAB, Netbeans, Eclipse, Visual Studio, Microsoft Visio, Origin Pro, Total commander, L ^A T _E X
Programming Skills	Binary Search, Data Structures, Dynamic-Programming, Basic Graph Theory, Competitive Programming, OOP
Database	Oracle, Sql Server, MySql, SQLite

Extracurricular Activities

- **Competitive Programming**
 - Solved more than 123 UVA problems. [visit]
- **Coach, programming competition**
 - ACM International Collegiate Programming Contest (ICPC)
 - National Girls Programming Contest (NGPC)
 - Inter Private University Programming Contest (IPUPC)
- **Judge, NASA Space Apps Challenge 2019, Dhaka, Bangladesh**

- **Student Advisor, Dept. of Information and Communication Technology (ICT), Bangladesh University of Professionals (BUP), Dec. 2017**
 - Counselling students
 - Student Progress Monitoring
- **Volunteer, at Institute of Information Technology (IIT), University of Dhaka (DU)**
 - Class representative from Jan. 2011 to June 2016
- **Singer**
 - *1st Runner Up*, Bagerhat Child Academy, Bangladesh
- **Gaming**
 - Became *1st Runner up* in Samsung R&D Institute Bangladesh Ltd., playing Carrom in 2016.

Awards

Research Grant	Dhaka, Bangladesh
– University Grants Commission of Bangladesh	2019 - 2020
Research Grant	Dhaka, Bangladesh
– University Grants Commission of Bangladesh	2018 - 2019
Research Fellowship, M.Sc.	Dhaka, Bangladesh
– Ministry of Information and Communication Technology, Bangladesh	2014 - 2015
Best Paper Award, 1st Prize	Dhaka, Bangladesh
– 18 th International Conference on Computer and Information Technology (ICCIT), IEEE, 2015	Dec. 2015
Top Student Merit Award	Dhaka, Bangladesh
– Kabi Sufia Kamal Hall, University of Dhaka (DU), Dhaka, Bangladesh	April. 2016
Merit Scholarship	Dhaka, Bangladesh
– Dhaka University Alumni Association, University of Dhaka (DU), Dhaka, Bangladesh	2014 - 2015
Merit Scholarship	Dhaka, Bangladesh
– Merkentile Bank Ltd., Bangladesh	2011
Board Scholarship	Jessore, Bangladesh
– Secondary School Certificate (SSC), Jessore Board, Bangladesh	2009-2010
Scholarship	Khulna, 2006
– Class Eight, Khulna Division, Bangladesh	

IELTS

- **Overall: 7.0**
 - Reading: 7.5
 - Listening: 7.0
 - Speaking: 7.0
 - Writing: 6.0

Academic Projects and Documentations

Live Projects

Website: *Department of Disaster Science and Management, University of Dhaka*

[visit](#)

Website: *Shahidullah Hall, University of Dhaka*

[visit](#)

PicEdit : *Windows Phone Application*

[visit](#)

- **3S painter** *Dhaka, Bangladesh
Jan. 2012 to Jul. 2012*
 - This is a desktop application. Features resemble with the Microsoft painting editor.
- **Employee competence development portal [visit](#)** *Dhaka, Bangladesh
Jan. 2013 to Jun. 2013*
 - This project is developed for Grameenphone IT LTD., Bangladesh. Developed using ASP.NET, C#, Entity Framework and SQL Server.
- **Sologuti** *Dhaka, Bangladesh
Jul. 2013 to Nov. 2013*
 - Sologuti game requires two persons, developed for Android application. The strategy is to get an opponent's guti by crossing over it with yours.
- **Skin detection [visit](#)** *Dhaka, Bangladesh
Aug. 2014 to Sept. 2014*
 - This is a machine learning based application. Here, skins are identified from several pictures. Here, system is trained using skin images and then skin regions are segmented in images. Developed using C programming and OpenCV.
- **Customized search engine [visit](#)** *Dhaka, Bangladesh
Feb. 2014 to Jun. 2014*
 - This project has been done using Lucene and Java EE.
- **Website: Hostel management, Kabi sufia kamal hall, [visit](#)** *Dhaka, Bangladesh
Jun. 2014 to Dec. 2014*
 - This website focuses on the hostel activities of the students such as id card generation, testimonial generation, etc.
- **Software bug localization (Class level) [visit](#)** *Dhaka, Bangladesh
Jan. 2015 to June. 2016*
 - In this project based on the bug reports, bugs are identified from the source code. This is an IR based technique, data are taken from Bugzilla

Reference

Dr. Mohammad Shoyaib

Professor

Institute of Information Technology

University of Dhaka

email: shoyaib@du.ac.bd

phone: +8801938406101

Dr. Kazi Muheymin-Us-Sakib

Professor

Institute of Information Technology

University of Dhaka

email: sakib@iit.du.ac.bd

phone: +8801730051232

Dr. Kazi Abu Taher

Professor

Information and Communication Technology

Bangladesh University of Professionals

email: kataher@bup.edu.bd

phone: +8801711306453