Dewan Ziaul Karim

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RESEARCH INTERESTS & CAREER OBJECTIVE

My research interest lies in the domain of artificial intelligence, machine learning, and computer vision. I believe that any good research involving AI has the prospect to transform and revolutionize our society and improve human lives. Hence, I intend to prepare myself as a dedicated researcher and academician in the field of AI and machine learning. I also plan to share my knowledge with others so that they can reach their full potential and build a successful career in the global market.

EDUCATION

M.Sc. in Computer Science and Engineering (CSE)

Ongoing

Course Work: Completed, Thesis: Ongoing

Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh.

B.Sc. in Computer Science and Engineering (CSE)

2012 - 2016

Thesis: Integrating Related XML Data into Data Warehouse Schema

Ahsanullah University of Science and Technology, Dhaka, Bangladesh.

CGPA: 3.919/4.00

Higher Secondary Certificate, 12th Grade National Examination

2011

Dhaka Residential Model College, Dhaka, Bangladesh.

GPA: 5.00/5.00

Higher Secondary Certificate, 10th Grade National Examination

2009

Dhaka Residential Model College, Dhaka, Bangladesh.

GPA: 5.00/5.00

Achievements

- Secured 1st position in my batch throughout the four years of B.Sc. in CSE (among 150 students).
- Awarded with Dean's list of honor award for achieving more than 3.75 CGPA in the bachelors degree, Ahsanullah University of Science & Technology, Dhaka, Bangladesh, 2016.
- Honorable mention at Ideas for Action awarded by The World Bank, 2019.
- Certificate for Scopus Indexed Publication awarded by Daffodil International University, Dhaka, Bangladesh, 2018.
- Government Scholarship in Secondary School Certificate Examination from Ministry of Education, Dhaka, Bangladesh, 2009.

PUBLICATIONS

- 1. **Dewan Ziaul Karim**, Tasfia Anika Bushra, Muntasir Mahmud Saif, "PestDetector: A Deep Convolutional Neural Network to Detect Jute Pests", accepted and waiting to be published in Proc. of the 4th International Conference on Sustainable Technologies for Industry 4.0 (STI), 2022.
- 2. Muntasir Mahmud Saif, **Dewan Ziaul Karim**, Rafeed Bin Akbar, Mohammed Arman Khan, Tanvir Badsha, Sadman Sakib, "SZR5: A Modern Technique to Detect Potholes using Convolution Neural Network", accepted and waiting to be published in Proc. of the 9th IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE), 2022.
- 3. Shihab Uddin Sikder, Md. Shafiul Muslebeen, **Dewan Ziaul Karim**, Ramkrishna Saha, Tasfia Anika Bushra, "OkkhorNet: A Deep Convolutional Neural Network to Classify Bengali Handwritten Characters", accepted and waiting to be published in Proc. of the 9th IEEE Asia-Pacific Conference on Computer Science and Data Engineering (CSDE), 2022.

- 4. Kazi Kamruzzaman Rabbi, Akram Hossain, Pranto Dev, Aninda Sadman, **Dewan Ziaul Karim**, Annajiat Alim Rasel, "KDANet: Handwritten Character Recognition for Bangla Language using Deep Learning", accepted and waiting to be published in Proc. of the 25th International Conference on Computer and Information Technology (ICCIT), pp. 651-656, 2022.
- 5. Mohammad Rakibul Hasan Mahin, Waheed Moonwar, Md. Shamsul Rayhan Chy, Fahim Faisal Raf, Md. Fahim Shahriar, **Dewan Ziaul Karim**, Annajiat Alim Rasel, "Interpretable Disease Classification in Plant Leaves using Deep Convolutional Neural Networks", accepted and waiting to be published in Proc. of the 25th International Conference on Computer and Information Technology (ICCIT), pp. 645-650, 2022.
- 6. Khalid Shifullah, H.M. Rakibullah, Nuzhat Islam, Hasin Raihan, Md. Ashik Iqbal, Dewan Ziaul Karim, Annajiat Alim Rasel, "Classification of Hotel Reviews Using Sentiment Analysis and Machine Learning", accepted and waiting to be published in Proc. of the 25th International Conference on Computer and Information Technology (ICCIT), pp. 710-715, 2022.
- 7. Abrar Shahriar Abeed, Asif Atiq, Afra Antara Anjum, Azher Ahmed Efat, **Dewan Ziaul Karim**, "BoMaCNet: A Convolutional Neural Network Model to Detect Bone Marrow Cell Cytology", in Proc. of the 25th International Conference on Computer and Information Technology (ICCIT), pp. 686-691, 2022.
- 8. Md. Farhadul Islam, Sarah Zabeen, Md. Azharul Islam, Fardin Bin Rahman, Anushua Ahmed, **Dewan Ziaul Karim**, Annajiat Alim Rasel, Meem Arafat Manab, "How Certain are Transformers in Image Classification: Uncertainty Analysis with Monte Carlo Dropout", accepted and waiting to be published in Proc. of the 15th International Conference on Machine Vision (ICMV), 2022.
- 9. Albi, T.R., Rafi, M.N., Bushra, T.A. and **Dewan Ziaul Karim**, 2022, February. "Diabetes Complication Prediction using Deep Learning-Based Analytics", in Proc. of the 2nd International Conference on Advancement in Electrical and Electronic Engineering (ICAEEE), pp. 1-6, 2022.
- Rahman, A.I., Bhuiyan, S., Reza, Z.H., Zaheen, J., Khan, T.A.N. and **Dewan Ziaul Karim**, 2022, March. "Intracranial Hemorrhage Detection on CT Scan Images using Transfer Learning Approach of Convolutional Neural Network", in Proc. of the 2nd International Conference on Computing Advancements (ICCA), pp. 171-177, 2022.
- 11. **Dewan Ziaul Karim**, Tasfia Anika Bushra, "Detecting Lung Cancer from Histopathological Images Using Convolution Neural Network", in Proc. of TENCON 2021-2021 IEEE Region 10 Conference (TENCON), pp. 1-6, 2021.
- 12. Arpita Dhar, Likhan Biswas, Prima Acharjee, Shemonti Ahmed, Abida Sultana, **Dewan Ziaul Karim**, Mohammad Zavid Parvez, "DFCatcher: A Deep CNN Model to Identify Deepfake Face Images", in Proc. of TENCON 2021-2021 IEEE Region 10 Conference (TENCON), pp. 1-6, 2021.
- 13. Md. Afif Al Mamun, **Dewan Ziaul Karim**, Subroto Nag Pinku, Tasfia Anika Bushra, "TLNet: A Deep CNN model for Prediction of Tomato Leaf Diseases", in Proc. of the 23rd International Conference of Computer and Information Technology (ICCIT), pp. 1-6, 2020.
- 14. Md. Al-Amin, **Dewan Ziaul Karim**, Tasfia Anika Bushra, "Prediction of Rice Disease from Leaves using Deep Convolution Neural Network towards a Digital Agricultural System", in Proc. of the 22nd International Conference of Computer and Information Technology (ICCIT), pp. 1-5, 2019.
- 15. Nafis Neehal, **Dewan Ziaul Karim**, Sejuti Banik, Tasfia Anika, "Runtime Optimization of Identification Event in ECG Based Biometric Authentication", in Proc. of the 2nd International Conference on Electrical, Computer and Communication Engineering (ECCE), pp. 1-5, 2019.
- 16. Nafis Neehal, **Dewan Ziaul Karim**, Ashraful Islam, "Cloud-POA: A cloud-based map only implementation of PO-MSA on Amazon multi-node EC2 Hadoop Cluster", in Proc. of the 20th International Conference of Computer and Information Technology (ICCIT), pp. 1-6, 2017.

WORK EXPERIENCE

Lecturer (Full Time)

May 2018 – Present

Department of Computer Science and Engineering, BRAC University, Dhaka, Bangladesh.

- Courses Taught: Introduction to Computer Science, Digital Logic Design, Data Communications, Software Engineering, System Analysis and Design.
- Administrative Responsibilities: Routine coordination, Courses offering, Semester schedule preparation, Exam routine and invigilation schedule preparation.

Department of Computer Science and Engineering,

Daffodil International University, Dhaka, Bangladesh.

• Courses Taught: Microprocessor & Assembly Language, Computer Architecture & Organization, Data Communication, Web Engineering, Social & Professional Issues in Computing, Communication Engineering.

Lecturer (Part Time)

October 2016 - March 2017

Department of Computer Science and Engineering,

Ahsanullah University of Science and Technology, Dhaka, Bangladesh.

• Courses Taught: Computer Fundamentals, Programming Language.

PROJECTS

- Student Recognizer (Language: Matlab, Platform: Windows) An application that detects the student ID number from the photo ID card.
- Line Follower Robot with Obstacle Avoider (Language: C) Created a robot using arduino mega that follows a line while avoiding obstacles.
- <u>kivabejaben.com</u> (Platform: Web, Front-End: HTML,CSS, Back-End: PHP, MySQL) A Website that helps users to find suitable bus routes in Bangladesh.
- <u>Moviemania.com</u> (Platform: Web, Front-End: HTML, CSS, Back-End: PHP, MySQL) A Website to help users finding information of movies.
- <u>ColorZone</u> (Language: Java, Platform: Android) An android drawing application.
- Fool The Alligator Game (Platform: Windows, Game Engine: Construct 2) A windows 2D game.
- The Hungry Monkey Game (Platform: Windows, Game Engine: Construct 2) An interactive 2D game developed for the windows platform.

Training, Conferences and Workshops

- Attended "Remote Training Program on ITEE Training of Trainers (TOT)", arranged by Bangladesh Computer Council (BCC) and AOTS, Dhaka, Bangladesh, 2021.
- Participated as an author in IEEE conferences (e.g., TENCON 2021, ICCIT 2020, ICCIT 2019, ECCE 2019 & ICCIT 2017).
- Attended the workshop on "Skills Development of ICT Engineers on IT Engineers Exam (ITEE) Targeting Japanese Market", arranged by University Grants Commission (UGC), Dhaka, Bangladesh, 2019.
- Attended training on "Participatory Engaging Teaching (PET)", arranged by Daffodil International University (DIU), Dhaka, Bangladesh, 2016.
- Completed training on CCNA Routing by American International University, Dhaka, Bangladesh, 2016.

SKILLS

- Programming Languages: C, Java, Python, HTML, CSS, PHP, JavaScript.
- Databases: MySQL, SQL Server, Oracle.
- IDEs: Microsoft Visual Studio, NetBeans, Eclipse, Codeblocks, Proteus, emu8086, Spyder.

Language Proficiency

• Bengali: Native

• English: IELTS: 8, CEFR level-C1

References

• Prof. Dr. Mohammad Shafiul Alam

Professor and former Head

Computer Science & Engineering,

Ahsanullah University of Science & Technology,

Dhaka-1208, Bangladesh.

Contact No: +8801715104101 Email: shafiul.cse@aust.edu

• Prof. Dr. S. M. Abdullah Al-Mamun

Professor and former Head

Computer Science & Engineering,

Ahsanullah University of Science & Technology,

Dhaka-1208, Bangladesh.

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