SAKIB MOSTAFA

Google Scholar: https://scholar.google.com/citations?user=iDKl2-AAAAAJ&hl=en
ResearchGate: https://www.researchgate.net/profile/Sakib-Mostafa
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RESEARCH INTEREST

Explainable AI, Machine Learning, Graph Theory, Computer Vision, Computational Modeling, Graphs and Combinatorics, Visual Analytics of Big Data.

EXPERIENCE

Mitacs Research Intern
Software Developer
Nutrien Ag Solutions, Canada.
August 2021 – Present

Research Assistant
Department of Computer Science
University of Saskatchewan, Canada.
January 2020 – Present

Teaching Assistant
Department of Computer Science
University of Saskatchewan, Canada.
January 2020 – August 2021

Research Assistant
Division of Biomedical Engineering
University of Saskatchewan, Canada.
September 2017 – September 2019

Lecturer
Department of Computer Science and Engineering
Bangladesh University, Bangladesh.
June 2016 – August 2017

EDUCATION

Doctor of Philosophy
Grade: 92% (Average)/100%
Department of Computer Science
University of Saskatchewan, Canada.
January 2020 – Present

Master of Science
Grade: 85% (Average)/100%
Division of Biomedical Engineering
University of Saskatchewan, Canada.
September 2017 – August 2019

Bachelor of Science
CGPA: 3.55/4.00
Department of Electronics and Communication Engineering
Khulna University of Engineering and Technology, Bangladesh.
December 2011 – May 2016

PUBLICATIONS

Book Chapter:

1. Sakib Mostafa and Fang-Xiang Wu, "Diagnosis of Autism Spectrum Disorder with Convolutional Autoencoder and Structural MRI Images," in *Neural Engineering Techniques for Autism Spectrum Disorder*, 1st Ed., Vol. 1, A. S. El-Baz and J. S. Suri, Eds. Academic Press, 2021, pp. 23–38, DOI: https://doi.org/10.1016/B978-0-12-822822-7.00003-X

Journal Papers:

1. Wutao Yin, **Sakib Mostafa**, Fang-Xiang Wu, "Diagnosis of Autism Spectrum Disorder Based on Functional Brain Networks with Deep Learning", in *Journal of Computational Biology*, vol. 28, no. 2, pp-146-165, Feb. 2021. DOI: https://doi.org/10.1089/cmb.2020.0252
2. **Sakib Mostafa**, LingKai Tang, and Fang-Xiang Wu, "Diagnosis of Autism Spectrum Disorder Based on Eigenvalues of Brain Networks", in *IEEE Access,* vol. 7, no. 1, pp-128474-128486, Sep. 2019. DOI: 10.1109/ACCESS.2019.2940198
3. Lingkai Tang, **Sakib Mostafa,** and Fang-Xiang Wu, "A Network Clustering Based Feature Selection Strategy for Classifying Autism Spectrum Disorder", in *BMC Med Genomics* 12, Article: 153 (2019). DOI: https://doi.org/10.1186/s12920-019-0598-0

Conference Papers:

1. **Sakib Mostafa**, Debajyoti Mondal, Michael Beck, Christopher Bidinosti, Christopher Henry, Ian Stavness, *"Visualizing Feature Maps for Model Selection in Convolutional Neural Networks", in International Conference on Computer Vision (ICCV 2021)* workshop on *Computer Vision in Plant Phenotyping and Agriculture (**Accepted**).*
2. Hongyu Guo, Wutao Yin, **Sakib Mostafa**, Fang-Xiang Wu, *"Diagnosis of ASD from rs-fMRI Images Based on Brain Dynamic Networks", in Bioinformatics Research and Applications. ISBRA 2020.* Lecture Notes in Computer Science, vol 12304. Springer, Cham. DOI: https://doi.org/10.1007/978-3-030-57821-3_15
3. **Sakib Mostafa**, Wutao Yin, Fang-Xiang Wu, "Autoencoder Based Methods for Diagnosis of Autism Spectrum Disorder", in *A. (eds) Computational Advances in Bio and Medical Sciences. ICCABS 2019.* Lecture Notes in Computer Science, vol 12029, Springer, Cham. DOI: https://doi.org/10.1007/978-3-030-46165-2_4
4. **Sakib Mostafa**, Masud An Nur Islam Fahim, and A B M Aowlad Hossain, "A New Chaos Based Medical Image Encryption Scheme", *Proc. International Conference on Informatics, Electronics & Vision (ICIEV)*, September 2017. DOI: 10.1109/ICIEV.2017.8338573
5. Masud An Nur Islam Fahim, **Sakib Mostafa**, Jarin Tasnim, and A B M Aowlad Hossain, "Alignment of 3-D Scanning Data for Polygonal Mesh based on Modified Triangulation", *Proc. International Conference on Informatics, Electronics & Vision (ICIEV)*, September 2017. DOI: 10.1109/ICIEV.2017.8338574
6. **Sakib Mostafa**, Masud An Nur Islam Fahim, and Jarin Tasnim, "An Approach to Effective 3D Reconstruction Based on Point Cloud Merging", *Proc. IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE 2016)*, December 2016. DOI: 10.1109/WIECON-ECE.2016.8009132
7. Md. Jahiruzzaman, Masud An Nur Islam Fahim, **Sakib Mostafa,** and A B M Aowlad Hossain, "An Adaptive Reconfigurable Radix-2n FFT/IFFT Architecture", *Proc. International Conference on Informatics, Electronics & Vision (ICIEV)*, May 2016. DOI: 10.1109/ICIEV.2016.7760143
8. Nusrat Zahan, A. B. M. Aowlad Hossain, and **Sakib Mostafa**, "Simulation Study on Nonlinear Ultrasound Imaging Using Different Realistic Synthetic Phantoms", *Proc. IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE 2015)*, December 2015. DOI: 10.1109/WIECON-ECE.2015.7443957

Preprint:

1. **Sakib Mostafa**, Debajyoti Mondal, *"On the Evolution of Neuron Communities in a Deep Learning Architecture",* 2021, arXiv:1904.07577v1. [Online]. Available: https://arxiv.org/abs/2106.04693v1

AWARDS

University of Saskatchewan Departmental Scholarship
Department of Computer Science
University of Saskatchewan, Canada.

January 2020 –
Present

Devolved Scholarship
Division of Biomedical Engineering
University of Saskatchewan, Canada.

September 2017 –
August 2019

Bangladesh Sweden Trust Fund
Government of Bangladesh, Bangladesh.

September 2018

Faculty Scholarship
Khulna University of Engineering and Technology, Khulna, Bangladesh.

May 2012 –
January 2016

LEADERSHIP EXPERIENCE

Vice President - Social
Computer Science Graduate Council (**CSGC**)
University of Saskatchewan, Canada.

October 2020 –
September 2021

President
Bangladesh Students' Association of University of Saskatchewan
University of Saskatchewan, Canada.

August 2020 –
July 2021

Vice President
Bangladesh Students' Association of University of Saskatchewan
University of Saskatchewan, Canada.

July 2018 –
August 2019

Vice President
Electronics and Communication Engineering Association of KUET
Khulna University of Engineering and Technology, Bangladesh

April 2015 –
March 2016

Principle Coordinator
MECE KUET
Khulna University of Engineering and Technology, Bangladesh

January 2014 –
May 2016

VOLUNTEER SERVICES

Research Fest Organizer
Computer Science Graduate Council, University of Saskatchewan

August 2021

Technical Paper Reviewer
Elsevier Journal, Neurocomputing

August 2021

Local Organizer
32nd Canadian Conference on Computational Geometry (CCCG)

August 2020

Technical Paper Reviewer
32nd Canadian Conference on Computational Geometry (CCCG)

August 2020

Technical Paper Reviewer
9th International Conference on Computational Advances in Bio and
Medical Sciences (ICCABS)

October 2019

Technical Paper Reviewer
International Conference on Bioinformatics and Biomedicine

September 2018

REFERENCES

- **Dr. Debajyoti Mondal**
  Assistant Professor
  Department of Computer Sciences
  University of Saskatchewan, Saskatoon, Canada.
  E-mail: d.mondal@usask.ca

- **Dr. Ian Stavness**
  Associate Professor
  Department of Computer Sciences
  University of Saskatchewan, Saskatoon, Canada.
  E-mail: stavness@usask.ca