

Stanford



Sakib Mostafa

Postdoctoral Scholar, Radiation Physics

Bio

BIO

I am a Postdoctoral Research Fellow at Stanford University with a background in computational genomics and deep learning. My research focuses on developing AI-powered tools for genomic analysis, with a particular interest in cancer classification, pangenomes, and genotype imputation. Previously, I worked as a Research Officer at the National Research Council of Canada, contributing to large-scale sequencing projects and machine learning interfaces for biologists. I am passionate about bridging domain biology with cutting-edge computational methods to solve complex biological questions and drive innovation in precision agriculture and healthcare.

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Saskatchewan , Computer Science (2024)
- Master of Science, University of Saskatchewan , Biomedical Engineering (2019)

STANFORD ADVISORS

- Md Tauhidul Islam, Postdoctoral Faculty Sponsor

LINKS

- LinkedIn: <https://www.linkedin.com/in/sakib-mostafa/>
- Google Scholar: <https://scholar.google.com/citations?user=iDKI2-AAAAAJ&hl=en>

Research & Scholarship

LAB AFFILIATIONS

- Md Tauhidul Islam, Islam Lab (4/1/2025)

Publications

PUBLICATIONS

- **Scalable and interpretable multimodal AI: Integrating imaging and genomics via image-based encoding for cancer and disease classification**
Mostafa, S., Islam, M.
AMER ASSOC CANCER RESEARCH.2026
- **Feature transformation for improved software bug detection and commit classification** *JOURNAL OF SYSTEMS AND SOFTWARE*
Mostafa, S., Cynthia, S., Roy, B., Mondal, D.
2025; 219

- **Explainable deep learning in plant phenotyping.** *Frontiers in artificial intelligence*
Mostafa, S., Mondal, D., Panjvani, K., Kochian, L., Stavness, I.
2023; 6: 1203546
- **Leveraging Guided Backpropagation to Select Convolutional Neural Networks for Plant Classification.** *Frontiers in artificial intelligence*
Mostafa, S., Mondal, D., Beck, M. A., Bidinosti, C. P., Henry, C. J., Stavness, I.
2022; 5: 871162
- **Diagnosis of Autism Spectrum Disorder Based on Functional Brain Networks with Deep Learning.** *Journal of computational biology : a journal of computational molecular cell biology*
Yin, W., Mostafa, S., Wu, F. X.
2021; 28 (2): 146-165
- **Diagnosis of autism spectrum disorder with convolutional autoencoder and structural MRI images** *Neural Engineering Techniques for Autism Spectrum Disorder*
Mostafa, S., Wu, F.
Elsevier.2021: 23-38
- **Visualizing Feature Maps for Model Selection in Convolutional Neural Networks**
Mostafa, S., Mondal, D., Beck, M., Bidinosti, C., Henry, C., Stavness, I., IEEE Comp Soc
IEEE COMPUTER SOC.2021: 1362-1371
- **Improving Deep Learning Classifiers by Learning Neuron Activation Patterns**
Mostafa, S., Yin, W., Wu, F.
2020: 39-51
- **A network clustering based feature selection strategy for classifying autism spectrum disorder.** *BMC medical genomics*
Tang, L., Mostafa, S., Liao, B., Wu, F. X.
2019; 12 (Suppl 7): 153
- **Diagnosis of Autism Spectrum Disorder Based on Eigenvalues of Brain Networks** *IEEE ACCESS*
Mostafa, S., Tang, L., Wu, F.
2019; 7: 128474-128486