

Sharif Amit Kamran

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EDUCATION

PhD. in Computer Science and Engineering

University of Nevada, Reno

CGPA: 3.5 / 4.0

Aug 2019 – Present

Bsc. in Computer Science and Engineering

BRAC University, Bangladesh

CGPA: 3.45 / 4.0

Jan 2013 – Apr 2017

SELECTED COURSEWORK

Deep Learning, Machine Learning, Computer Vision, Computer Vision in Medicine, Ophthalmic Visual Computing, Applied Computer Vision

WORK EXPERIENCE

Graduate Research Assistant, University of Nevada, Reno

Department of Computer Science and UNR school of Medicine

Aug 2019 – Present

Co-Founder, Bengali.AI

Dhaka, Bangladesh

Apr 2018 – Present

Researcher, Center for Cognitive Skill Enhancement

Independent University Bangladesh (IUB), Dhaka, Bangladesh.

May 2017 – Jun 2019

PROJECTS

Retinal Image Synthesis using Generative Adversarial Networks

- Implemented an attention-based generative adversarial networks for synthesizing Fluorescence Angiography from Retinal Fundus Photography.

Improving Robustness of OCT images using Joint Attention Networks

- Implemented a supervised-unsupervised joint attention network for improving robustness of Retinal disease detection from Optical Coherence Tomography images.

Calcium ST-Maps Generation, Denoising and Segmentation using GAN

- Created a pipeline for Ca²⁺ spatio-temporal map generation, denoising and segmentation using deep learning.

Semantic Segmentation using Fully Convolutional Neural Networks (FCN)

- Implemented a FCN using dilated convolution and multi-scale skip connections for semantic segmentation.

ACADEMIC SERVICES

Student Organizer

- 14th International Symposium on Visual Computing (ISVC) 2019

Oct 2019

Graduate Teaching Assistant

- CS491/CS691 Deep Learning

Jan 2020 – May 2020

Mentor

- Research & Engineering Apprenticeship Program (REAP) under AEOP

Jun 2020 – Aug 2020

SELECTED PUBLICATIONS

- [1] A Comprehensive Set of Novel Residual Blocks for Deep Learning Architectures for Diagnosis of Retinal Diseases from Optical Coherence Tomography Images, 2020, *Book Chapter, in Deep Learning Vol 2., Springer Nature.*
- [2] A High Throughput Machine-Learning Driven Analysis of Ca²⁺ Spatio-temporal Maps, 2020, in *Cell Calcium*, 91, p.102260
- [3] Improving Robustness using Joint Attention Network For Detecting Retinal Degeneration From Optical Coherence Tomography Images in *27th IEEE International Conference on Image Processing 2020 (ICIP).*

** For full list of publications: ([Link](#))

AWARDS & HONORS

Graduate Dean's Merit Scholarship,

Fall 2019 and Spring 2020

Aug 2019 – May 2020

Best Paper Award,

2018 International Symposium on Advanced Intelligent Informatics (SAIN)

Aug 2018

SKILLS

- Programming Languages:** C++, Python, Java, Bash (Shell Scripting), Matlab, HTML-CSS, Git, PHP
- Libraries:** OpenCV, Scikit-learn, Numpy, Caffe, Keras, Tensorflow, PyTorch, CoreML, ImageJ.
- Systems:** Linux OS, Google Cloud Platform (Compute Engine & App Engine)