

# 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

## 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

### Mentor, Research & Engineering Apprenticeship Program (REAP)

US Army Educational Outreach Program

Jun 2020 – Aug 2020

### 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 Fluorescein 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 Ca<sup>2+</sup> 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

### Reviewer

- BMVC-2020, WACV-2020, ICRA-2019, Sensors, IJAIT

2019 – Present

### Graduate Teaching Assistant

- CS491/CS691 Deep Learning

Jan 2020 – May 2020

## SELECTED PUBLICATIONS

- [1] 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)*.
- [2] A High Throughput Machine-Learning Driven Analysis of Ca<sup>2+</sup> Spatio-temporal Maps, 2020, in *Cell Calcium*, 91, p.102260
- [3] Attention2AngioGAN: Synthesizing Fluorescein Angiography from Retinal Fundus Images using Generative Adversarial Networks in *25th International Conference on Pattern Recognition (ICPR)*.

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

## SELECTED COURSEWORK

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

## 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)