# Sharif Amit Kamran

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## EDUCATION

**PhD. in Computer Science and Engineering** — **CGPA**: 3.5 / 4.0
University of Nevada, Reno — Aug 2019 – Present

**Bsc. in Computer Science and Engineering** — **CGPA**: 3.45 / 4.0
BRAC University, Bangladesh — Jan 2013 – Apr 2017

## WORK EXPERIENCE

**Graduate Research Assistant**, University of Nevada, Reno — Aug 2019 – Present
*Department of Computer Science and UNR school of Medicine*

**Co-Founder**, Bengali.AI — Apr 2018 – Present
*Dhaka, Bangladesh*

**Mentor**, Research & Engineering Apprenticeship Program (REAP) — Jun 2020 – Aug 2020
*US Army Educational Outreach Program*

**Researcher**, Center for Cognitive Skill Enhancement — May 2017 – Jun 2019
*Independent University Bangladesh (IUB), Dhaka, Bangladesh.*

## PROJECTS

**Retinal Image Synthesis using Generative Adversarial Networks**
- Implemented an attention-based generative adversarial networks for synthesizing Fluroscien 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

**Reviewer** — 2019 – Present
- BMVC-2020, WACV-2020, ICRA-2019, Sensors, IJAIT

**Graduate Teaching Assistant** — Jan 2020 – May 2020
- CS491/CS691 Deep Learning

## 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 2+ Spatio-temporal Maps, 2020, in *Cell Calcium, 91*, p.102260

[3] Optic-Net: A Novel Convolutional Neural Network for Diagnosis of Retinal Diseases from Optical Tomography Images in *18th IEEE International Conference On Machine Learning And Applications 2019 (ICMLA).*

** 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**, Aug 2019 – May 2020
  Fall 2019 and Spring 2020
- **Best Paper Award**, Aug 2018
  2018 International Symposium on Advanced Intelligent Informatics (SAIN)

## 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)