Sharif Amit Kamran

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EDUCATION

Ms. in Computer Science and Engineering — **CGPA**: 3.5 / 4.0
University of Nevada, Reno — Aug 2019 – Dec 2020

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

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

Deep Learning Engineer, SkinIQ Inc. — May 2018 – Jun 2019
Palo Alto, California, U.S.

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

RESEARCH INTEREST

My research interest lies in the intersection of Computer Vision, Deep Learning, and Medical Image Processing. Most of my research involves Supervised and Unsupervised algorithms for Image Classification, Semantic Segmentation, etc. Quite recently, I have been working on improving robustness, image synthesis, and image denoising using GAN on different modalities of Ophthalmological and Calcium imaging data.

PUBLICATIONS

BOOK CHAPTER

[1] A Comprehensive Set of Novel Residual Blocks for Deep Learning Architectures for Diagnosis of Retinal Diseases from Optical Coherence Tomography Images, as *Book Chapter, in Deep Learning Vol 2., Springer Nature.*

JOURNALS

[1] A High Throughput Machine-Learning Driven Analysis of Ca 2+ Spatio-temporal Maps, in *Cell Calcium.*

[2] Denoising Calcium Signals (Spatial-temporal Maps) using Mathematical Noise Modeling, in *IScience.* **Submitted**

[3] Fundus2Angio: A Novel Conditional GAN Architecture for Generating Fluorescein Angiography Images from Retinal Fundus Photography in *Scientific Reports.* **Submitted**

CONFERENCES

[1] Attention2AngioGAN: Synthesizing Fluorescein Angiography from Retinal Fundus Images using Generative Adversarial Networks, in *25th IEEE International Conference on Pattern Recognition 2020 (ICPR).* **Submitted**

[2] 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).*

[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).*

[4] Total Recall: Understanding Traffic Signs using Deep Hierarchical Convolutional Neural Networks, in *21st IEEE International Conference on Computer and Information Technology 2018 (ICCIT)*

[5] Efficient Yet Deep Convolutional Neural Networks for Semantic Segmentation, in *IEEE International Symposium on Advanced Intelligent Informatics 2018 (SAIN)*

AWARDS & HONORS

- **Graduate Dean's Merit Scholarship**, Aug 2019 – May 2020
  Awarded 10,000 USD for Fall 2019 and Spring 2020
- **Best Paper Award**, Aug 2018
  2018 International Symposium on Advanced Intelligent Informatics (SAIN)

REVIEWER BMVC 2020, ICRA 2019

SKILLS

Programming Languages and Libraries

- C++, Python, Java, Bash (Unix Shell Scripting), Matlab
- OpenCV, Scikit-learn, Numpy, Pandas, Caffe, Keras, Tensorflow, PyTorch, CoreML, Google Cloud Platform.