Sharif Amit Kamran

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EDUCATION PhD. in Computer Science and Engineering

2019 - Present

University of Nevada, Reno

Ms. in Computer Science and Engineering

Aug 2019 – Dec 2020

University of Nevada, Reno

Bsc. in Computer Science and Engineering

Jan 2013 – Apr 2017

BRAC University, Bangladesh

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 interests lie 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 Opthalmological and Calcium imaging data.

PUBLICATIONS

BOOK CHAPTER

[1] Kamran, Sharif Amit, Sourajit Saha, Ali Shihab Sabbir and Alireza Tavakkoli, "A Comprehensive Set of Novel Residual Blocks for Deep Learning Architectures for Diagnosis of Retinal Diseases from Optical Coherence Tomography Images"Book Chapter, in Deep Learning Vol 2., Springer Nature.

JOURNALS

[1] Leigh, Wesley, Guillermo Del Valle, <u>Sharif Amit Kamran</u>, Alireza Tavakkoli, Kenton M. Sanders and Salah A. Baker, "A High Throughput Machine-Learning Driven Analysis of Ca 2+ Spatio-temporal Maps," in *The FASEB journal*. **Submitted**

CONFERENCES

- [1] Kamran, Sharif Amit, Khondker Fariha Hossain, Alireza Tavakkoli and Stewart Lee Zuckerbrod "Fundus2Angio: A Novel Conditional GAN Architecture for Generating Fluorescein Angiography Images from Retinal Fundus Photography" in *Arxiv*. **Pre-print**
- [2] <u>Kamran, Sharif Amit</u>, Alireza Tavakkoli and Stewart Lee Zuckerbrod "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] Kamran, Sharif Amit, Sourajit Saha, Ali Shihab Sabbir and Alireza Tavakkoli, "Optic-Net: A Novel Convolutional Neural Network for Diagnosis of Retinal Diseases from Optical Tomography Images" in 2019 18th IEEE International Conference on Machine Learning and Applications (ICMLA).

- [4] Saha, Sourajit, Sharif Amit Kamran and Ali Shihab Sabbir, "Total Recall: Understanding Traffic Signs using Deep Hierarchical Convolutional Neural Networks," in 2018 21st International Conference on Computer and Information Technology (ICCIT), IEEE.
- [5] Kamran, Sharif Amit, and Ali Shihab Sabbir, "Efficient Yet Deep Convolutional Neural Networks for Semantic Segmentation," in 2018 International Symposium on Advanced Intelligent Informatics (SAIN), IEEE.

AWARDS & HONORS

■ **Graduate Dean's Merit Scholarship**, Awarded 10,000 USD for Fall 2019 and Spring 2020 Aug 2019 - May 2020

■ Best Paper Award,

Aug 2018

2018 International Symposium on Advanced Intelligent Informatics (SAIN)

REVIEWER

BMVC 2020, ICRA 2019, IJAIT

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.