THAMIDUL ISLAM TONMOY

Research Assistant,
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Education

September 2017 **Bachelor of Science in Electrical & Electronic Engineering**
Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh
CGPA: 3.57 on a scale of 4.00
Thesis: Breast Cancer Classification from Histopathological Image
Supervisor: Professor Dr. Md. Kamrul Hasan

Research Interest

Biomedical Image Processing, Biomedical Signal Processing, Computer Vision , Machine Learning

Research Experience

DSP Research Lab, BUET
Undergraduate Student (Sep'16 – Sep'17)
Research Assistant (Nov'17 – Present)

3. Breast Lesion Classification from Ultrasound Image (on going)
In this research, we are trying to classify breast lesion from B-mode ultrasound image using convolutional neural network.

2. Traffic Sign Detection and Recognition
Worked on the winning model of IEEE VIP Cup 2017 to enhance the robustness of the system which uses neural networks to tackle the challenge.

1. Breast Cancer Classification from Histopathological Image
In this undergrad thesis, we explored the power of convolutional neural networks in two different domains (image and DCT) to classify breast histopathological images.

Publications

Manuscript Under Review U. Kamal, **T. I. Tonmoy**, S. Das, and M. K. Hasan, "*Automatic Traffic Sign Detection and Recognition Using SegU-Net and a Modified Tversky Loss Function with L1-Constraint*", Submitted in IEEE Trans. Intell. Transp. Syst., July 2018.

Poster Presentation "*Breast Cancer Classification from Histopathological Image*", Seminar on Beat Breast Cancer with Early Detection, Diagnosis, and Treatment, Department of EEE, BUET, April 2018

Skills

Deep Learning	PyTorch, Keras, TensorFlow, NVIDIA DIGITS, Caffe
Programming	Python, MATLAB, C, C++, Assembly, PLC, Verilog
Operating System	Windows, Ubuntu
Graphics Editor	Adobe Illustrator, Inkscape
Web Design	HTML, CSS
Web Management	WordPress, Joomla

Online Courses Audited

Stanford University	Convolutional Neural Networks for Visual Recognition (Spring 2017)
Coursera	Machine Learning
deeplearning.ai	Neural Networks and Deep Learning
	Improving Deep Neural Networks
	Structuring Machine Learning Projects
	Convolutional Neural Networks

Highlighted Undergraduate Projects

June 2017	*Low-Cost Implementation of Whole Slide Image (WSI) Scanner*, Biomedical Instrumentation Laboratory project
December 2016	*8×8 Booth Multiplier with Kogge-Stone Adder*, VLSI I Laboratory project
	Self-Stabilizing Platform, Control System Laboratory project
June 2016	*Automatic Railway Track Security System*, Communication Laboratory project
	CNC Plotter, Microprocessor and Interfacing Laboratory project
December 2015	*Automatic Water Supply System*, Under Digital Electronics Laboratory project

Awards & Scholarships

2013 – 2014	Dean's List Award in undergraduate level 2 in BUET
2010 – 2012	Secondary School Certificate Board Scholarship
2005 – 2007	Primary School Board Scholarship

Organizing Experiences

- Lead Organizer & Treasurer, EEE Day 2017, BUET
- Event Organizer (Game Show), EEE Picnic 2016, BUET
- Co-ordinator of Decoration Committee, EEE Day 2015, BUET
- Lead Organizer, Freshers' Reception Program 2014, Department of EEE, BUET

Volunteering Experience

- Contributor, BUET EEE Archives (bueteeearchives.net)