

# THAMIDUL ISLAM TONMOY

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## Education

**September 2017**      **Bachelor of Science in Electrical & Electronic Engineering**  
Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh  
Major: Communication, Minor: Electronics  
CGPA: 3.57 on a scale of 4.00

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## Research Interest

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

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## Research Experience

**DSP Research Lab, BUET**      Undergraduate Student (Sep'16 – Sep'17), Research Assistant (Nov'17 – Present)  
3. Image Processing with Convolutional Neural Network (on going)  
2. Traffic Sign Detection and Recognition  
1. Breast Cancer Classification from Histopathological Image (undergrad thesis)

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## 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

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## 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

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## Awards & Scholarships

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

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## Highlighted Undergraduate Projects

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

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## Online Courses Audited

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|----------------------------|---|
| <b>Stanford University</b> | Convolutional Neural Networks for Visual Recognition  |
| <b>Coursera</b>            | Machine Learning  |
| <b>deeplearning.ai</b>     | Neural Networks and Deep Learning<br>Improving Deep Neural Networks<br>Structuring Machine Learning Projects<br>Convolutional Neural Networks |

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## Organizing Experiences

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- 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

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## Volunteering Experience

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- Contributor, BUET EEE Archives (bueteeearchives.net)