

# Shubhra Aich

<https://littleaich.github.io>

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## EDUCATION

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- **University of Saskatchewan** Saskatoon, Canada  
*Master of Science in Computer Science; Marks: 86%*  
*Jan 2017 – Present*
- **Chonnam National University** Gwangju, South Korea  
*Master of Engineering in Electronics and Computer Engineering; GPA: 3.85 (4.30/4.50)*  
*Sep 2014 – Aug 2016*
- **Bangladesh University of Engineering and Technology** Dhaka, Bangladesh  
*Bachelor of Science in Electrical and Electronic Engineering; GPA: 3.23*  
*Jan 2008 – Dec 2012*

## EXPERIENCE

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- **Samsung R&D Institute Bangladesh (SRBD)** Dhaka, Bangladesh  
*Software Engineer*  
*Apr 2013 - Aug 2014*

## TECHNICAL SKILLS

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- **Languages:** Python, MATLAB, C/C++, Lua, R
- **Toolkits:** PyTorch, Torch, OpenCV, scikit-learn, scikit-image

## THESIS PROJECTS

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- **Object Counting with Deep Learning (Ongoing):** Counting object instances from images. See “Publications” for further details.

## SELF-DRIVEN PROJECTS

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- **(Kaggle) Carvana Image Masking Challenge:** High resolution car image segmentation (binary) problem. Ranked 18/735 (Top 3%) under the name of “biglab-usask”.
- **(Kaggle) Cdiscount’s Image Classification Challenge:** Large-scale e-commerce image classification challenge over 5270 categories. The training and the test datasets comprise about 12 million images and 1.7 million products, respectively. Ranked 103/627 teams (Top 17%).
- **(Kaggle) TensorFlow Speech Recognition Challenge:** Classification of speech signal over 10 different categories. Finished in top 27%(351/1315).

## RESEARCH INTERESTS

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- | Machine Learning | Computer Vision | NLP Aided Visual Learning |

## PUBLICATIONS

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- **S. Aich**, W. van der Kamp, and I. Stavness. Semantic Binary Segmentation using Convolutional Networks without Decoders. *Under review (DeepGlobe CVPR Workshop 2018)*.
- **S. Aich**, and I. Stavness. Improving Object Counting with Heatmap Regulation. *Under review (ECCV 2018)*. [ArXiv](#)
- **S. Aich et al.** DeepWheat: Estimating Phenotypic Traits from Crop Images with Deep Learning. *WACV 2018*. [ArXiv](#) [Code](#)
- **S. Aich**, and I. Stavness. Leaf Counting with Deep Convolutional and Deconvolutional Networks. *Workshop ICCV 2017 (Oral)*. [ArXiv](#) [Code](#)
- **S. Aich**. Recognition of Flower Species using Visual Vocabulary of Compound Descriptors. *Masters Thesis, South Korea, 2016*. [PDF](#) [Code](#)
- **S. Aich**, and C-W. Lee. A General Vocabulary Based Approach for Fine-Grained Object Recognition. *PSIVT, 2015*. [Link](#) [Code](#)

## MOOC VERIFIED COURSES

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- **Coursera:** | Deep Learning Specialization (Andrew Ng) | Machine Learning by University of Washington | The Data Scientist’s Toolbox | Algorithms by UC San Diego | Synapses, Neurons and Brains by Hebrew University of Jerusalem |
- **Stanford Online:** | Statistical Learning |
- Links to all the **Verified Certificates**