

# MD. ZAHIDUL ISLAM

## CURRICULUM VITAE

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## EDUCATION

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### Islamic University of Technology

#### B.Sc. in Computer Science and Engineering (CSE)

📅 Jan 2017 – March 2021

- **Current CGPA - 3.98 out of 4.00** (upto 7th semester)
- **Notable Courses** - Digital Image Processing, Machine Learning, Pattern Recognition, Human Computer Interaction, Artificial Intelligence, Numerical Methods, Mathematical Analysis, Compiler Design, Operating System, Theory of Computing, Computer Networks, Database Management System, Algorithms, Data Structure, Object Oriented Programming, Structured Programming

### Cumilla Cadet College

- Higher Secondary Certificate 2016 - GPA 5, 3rd in Cumilla Education Board
- Secondary School Certificate 2014 - GPA 5, 1st in Cumilla Education Board

## RESEARCH EXPERIENCE

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### B.Sc. Thesis

- **Domain** - Computer Vision, Deep Learning
- **Topic** - Violent Activity Detection from Surveillance Footage
- **Summary** - Automatic violence detection from surveillance footage deserves special attention because of its wide applicability in unmanned security monitoring systems, internet video filtration, etc. We proposed an efficient two-stream CNN-LSTM network leveraging Separable Convolutional LSTM and pretrained MobileNet which achieved state of the art performance standard benchmark datasets. Our work is currently submitted in International Joint Conference on Neural Networks (IJCNN) 2021.
- **Supervised by** - Professor Dr. Md. Hasanul Kabir, PhD

### Field of Interest

- Computer Vision                      • Digital Image Processing
- Deep Learning                        • Pattern Recognition

## PROFESSIONAL EXPERIENCE

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### Samsung R & D Institute Bangladesh

#### Intern, Mobile Application Development

📅 Nov 2019 – Jan 2020

📍 Dhaka, Bangladesh

- worked on classification of human walking patterns with smartphone accelerometer data using deep learning techniques to recognize real user of smartphone.
- hands-on experience on basic mobile application development using android studio.

## SKILLS

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- **Languages** - Python, Java, C++, C, MiniZinc
- **Machine Learning** - Tensorflow, PyTorch
- **Web** - HTML, CSS, JavaScript ( *frontend* )
- **Database** - SQL, PL/SQL, SQLite
- **Image Processing** - OpenCV, MATLAB
- **OS** - UNIX shell scripting, x86 Assembly

## PROJECTS

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### **Inpainter** *Python, OpenCV* 2020

- a python GUI application that lets you fill up missing or damaged areas or remove foreground objects from images very easily.

### **Traffic Sign Localization and Recognition** *Tensorflow* 2020

- a two stage system where at first, region of interests likely to contain traffic signs are found out using *Voila-Jones* object detection algorithm. Then, a deep neural network recognizes the traffic signs.

### **EasyScan OCR Whiteboard** *Python, OpenCV, Tesseract* 2021

- A interactive GUI digital whiteboard with live handwriting recognition (OCR). This feature allows saving whiteboard sessions as texts and helps improve the understandability of the handwriting.

### **Tsaurus** *Node JS, Python, OpenCV* 2019

- helps children learn new words in a fun way by simply taking photo of text. The software fetches relevant images, dictionary meaning etc. from internet. It uses OCR and webscrapping tools.

### **Inverse Kinematics** *Python, Sympy, Matplotlib* 2019

- automates the movement of a robotic arm with 6 degrees of freedom and visualizes it using an easy to use graphical interface.

source code & documentation of all projects: [github.com/Zedd1558](https://github.com/Zedd1558)

## ACTIVITIES & AWARDS

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### **Online Courses** 2020, 2019

- **Deep Learning Specialization**, deeplearning.ai, Credential ID: KCHXFEXZJ2RW, Feb 2020
- **TensorFlow Developer**, deeplearning.ai, Credential ID: 6K8JNGEJA5WQ, Apr 2020
- **Machine Learning**, Coursera, Credential ID: K4YPAFVJ3REF, Aug 2019

### **European Rover Challenge** 2019, 2018

- Implemented robotic arm manipulation using inverse kinematics and image processing for IUT Mars Rover and achieved 15th position in ERC 2019 and 14th position (best among Asian teams) in ERC 2018.

### **Matlab Coding Challenge** 2020, 2019

- Champion in Matlab Mania at *Horizon 2020*, organized by KUET.
- Champion in Matlab Challenge at *Esonance 2019*, organized by dept. of EEE, IUT.

### **ICT Olympiad** 2019

- Champion in ICT Olympiad at IUT 10th ICT Fest organized by dept. of CSE, IUT.

### **Line Following Robot Racing** 2018

- Runners up in LFR Racing at *Technovision* organized by ECE dept., North South University.

### **Programming Contest** 2017

- 4th position in Intra IUT programming contest.

## REFERENCE

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### **Dr. Md. Hasanul Kabir**

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