



# MD. IQBAL HOSSAIN

## ABOUT ME

I am a Computer Vision and AI enthusiast with a desire to become a top researcher and apply my knowledge in real world. There is no limit and with each day there is something new to learn. So I try to stay updated with the state of the art techniques and algorithms. I am an expert Python programmer. I work professionally as a Computer Vision and Python developer. I have strong knowledge about Tensorflow framework of Deep Learning. I am also efficient in Java, SQL, Matlab, Octave, HTML, CSS programming languages. Even though my main focus of research is Computer Vision and AI related, I have also done basic research on Biometric systems, Information Visualization, HCI, Human Interaction with Autonomous Vehicles, NLP. I believe it's important to have all-round tech knowledge to keep up with the pace of modern world.

## BASIC SKILLS

- Fast Learner
- Communication
- Leadership ability
- Team worker
- Determined
- Responsible

## LANGUAGES

- English
- Bangla
- French

## CONTACT

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- 📍 Dhaka, Bangladesh
- 🐙 <https://github.com/Iqbal0007>

## EDUCATION

2015 - 2019

BSc in Computer Science and Engineering  
BRAC University, Dhaka, Bangladesh, Website - [www.bracu.ac.bd](http://www.bracu.ac.bd)  
CGPA - 3.54/4

2013 - 2014

Higher Secondary Certificate (Science)  
Dhaka Residential Model College, Dhaka, Bangladesh  
GPA - 5.00/5

2011 - 2012

Secondary School Certificate (Science)  
Dhaka Residential Model College, Dhaka, Bangladesh  
GPA - 5.00/5

## EXPERTISE

### PROGRAMMING LANGUAGE

- Python 

8
- Java 

7
- Matlab 

5
- Octave 

5
- HTML 

6
- CSS 

5
- PHP 

5
- SQL 

6

### PROGRAMMING LIBRARIES, FRAMEWORKS & TOOLS

- OpenCV • Matplotlib • Seaborn • Numpy • SciPy • Pandas
- Scikit - Learn • Tensorflow • CUDA • Bootstrap • OpenGL
- Tesseract • CNN • YOLO • JSON • XML • VGG • LabelImg
- HelmetJS • PIL • RNN • Git • D3 • GAN

### RESEARCH AREAS

- Computer Vision • Image Processing • AI
- Machine Learning • Deep Learning • Object Detection
- Motion Segmentation • Pattern Recognition • HCI
- Information Visualization • Human Robot Interaction • NLP

## WORK AND RESEARCH EXPERIENCE

- **Computer Vision** Research in the **Computer Vision and Intelligent System (CVIS)** Research Lab, BRAC University (September 2021 - Present)
- **Undergraduate thesis** on Computer Vision and Deep Learning  
**Topic** - Identifying Bikers Without Helmets Using Deep Learning Models
- **Artificial Intelligence** course project - Emotion Recognition using EEG signals
- **Digital System Design (DSD)** course project - Smart Monitoring System For Elderly People Using HeartRate Monitor and Gyroscope for Emergency Response
- **Computer Vision and Image Processing** engineer at Upwork (Freelance projects) (2019 - Present)
- **Data Visualization** and **Graphic Designer** expert at Upwork (2017 - Present)
- **Python** programming course creator and instructor on contractual basis for a professor of Cambrian College (Sudbury, Ontario) (September, 2021 - Present)
- **Information Visualization** project for the Director of Management, Cranfield University, UK

# PUBLICATION AND RESEARCH PROJECTS

## IEEE Publication -

- “Identifying bikers without helmets using deep learning models” in 2021 International Conference on Digital Image Computing : Techniques and Applications (DICTA 2021)

## Research Projects -

- Collaboration project with a PhD student, Concordia University on a Pattern Recognition project for identifying shop types from shop signs (both occluded and not occluded)
- Identifying house types using door fronts and their location for a tech startup based in UK
- Intelligent safety system for detecting safety equipment such as hand gloves, masks, surgical gowns, protective glasses to ensure complete safety in work places and medical environment
- Bangla Text Recognition using image processing techniques such as Gaussian Blur, Binary Threshold, Greyscale etc. and Optical Character Recognition system
- Audio to Speech conversion using AI

## Ongoing Research Projects -

- Object depth calculation from Motion Segmentation for better interaction with Autonomous Vehicles
- Image-to-Image, Text-to-Image translation, Photo Manipulation using GANs

# Summary of Honors, Scholarships and Awards

- Merit Based Scholarship in my undergraduate program for outstanding result (highest grade in all the subjects) in Secondary School Certificate (SSC) and Higher Secondary Certificate (HSC) exams and for maintaining a CGPA greater than 3.5 out of 4 in my undergraduate level. This scholarship allowed me to get 70% scholarship throughout my undergraduate level. Only 2-5% students approximately manage to get this scholarship as ticking all the requirements is really tough
- Dean's list based on semester GPA in 2 semesters
- BSc. in Computer Science and Engineering degree with distinction honour
- Golden A+ in Higher Secondary Certificate (HSC) for achieving the highest grade in all the subjects along with optional subjects. This comprises only 5-10% of total HSC students in a given year. The percentage varies year to year
- Golden A+ in Secondary School Certificate (SSC) for achieving the highest grade in all the subjects along with optional subjects
- Deep Learning Specialization certification by Deeplearning.ai, Machine Learning certification by Stanford University, IBM Data Science Professional Certificate by IBM through Coursera, an online course provider
- Distinction certificate for taking the English exam International Assessments for schools for the class 8 students sponsored by University of New South Wales and being in the Top 4% in the region. This certificate would allow me to get a 20% scholarship if I choose to study in the University of New South Wales
- Top Rated freelancer at Upwork. Top Rated status is the highest honour at Upwork and it comprises only 10% of the total freelancers all over the world. I work as a Computer vision scientist and also as a graphic designer at Upwork
- Verified by Upwork for being a top freelancer and having a consistent outstanding reputation
- Verified Python Programmer by HackerRank and also earned the Gold badge
- Multiple awards in co-curricular and sports activities throughout my educational period