

# Mehedi Imam Shafi

R&D Engineer | Data Scientist | <https://mehedi-shafi.github.io>  
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## SKILLS

### MACHINE LEARNING

Regression  
Support Vector Machines  
Naïve Bayes  
K-Nearest Neighbors  
Decision Trees

### DEEP LEARNING

Artificial Neural Network  
Shallow Neural Network  
Deep Neural Network  
CNN, RNN, R-CNN, YOLO

### PROGRAMMING

Languages  
Python (3.x), C, C++, JAVA, Kotlin  
JavaScript, HTML, Markdown, CSS  
SQL

### Frameworks and tools

Tensorflow, PyTorch, Keras  
Dlib, TFLite  
Flask, Node, Express  
Gradle (android)

### Database

PostgreSQL, MySQL

### Version Control System

Git, GitHub, GitLab

### Cloud

AWS - EC2, S3, Rekognition  
Google Cloud - Firebase, Speech API

### OS and Misc.

Linux - Arch, Manjaro, Ubuntu  
Windows - 7-10  
Shell - Bash and Zsh

## EDUCATION

### BACHELOR OF SCIENCE

COMPUTER SCIENCE AND  
ENGINEERING

Daffodil International University  
January, 2019 | Dhaka, Bangladesh

## EXPERIENCE

### CODEMARSHAL IT SYSTEMS LTD

RESEARCH & DEVELOPMENT ENGINEER

Feb 2019 – Present | Dhaka, Bangladesh

- Built face verification and recognition server using Tensorflow, Mxnet hybrid models.
- Built on device face verification and recognition library for Android using tensorflow-lite with model accuracy of 0.99 out of 1.0
- Built automatic identity extraction from ID cards using image processing to understand given scene and optical character recognition to extract information given using tesseract 4.1 as base OCR library.
- Built intelligent IVR from analyzing speech input using google's speech API.
- On device machine learning sdks for android (Object Classification, Face Detection, Face Verification)

### DIU COMPUTER AND PROGRAMMING CLUB

PRESIDENT

Jan 2018 – Dec 2019 | Daffodil International University, Dhaka, Bangladesh

- Was in active organizing body of ICPC, Dhaka Regional, 2018. Managing contest floor along with handling online presence of the contest.
- Arranged various workshop and technical talks to encourage students in rising technologies.
- Arranged specific training courses for weak and advanced students alike (differently).

### DAFFODIL INTERNATIONAL UNIVERSITY

STUDENT PREFECT

May 2018 - December 2018 | Dhaka, Bangladesh

- Helped course faculty to do design and prepare course material for lab.
- Prepared and evaluated class assignments and programming tasks.
- Helped course faculty evaluate course projects and presentations.

## PROJECTS

### WORD SCRABBLE BOT

A PROGRAM THAT USES OCR TO IDENTIFY AND PLAY WORD SCRABBLE

Project Repository: [🔗/mehedi-shafi/word-scrabble-bot](https://github.com/mehedi-shafi/word-scrabble-bot)

- Automated letter identification
- Automated word scrabble board identification
- Generate correct list of words to play with
- Simulate playing by automated mouse controlling




### CF SOLVE TRACKER

AUTOMATED TRACKING OF SOLVING FOR INDIVIDUAL ON ANY CONTEST

Project Repository: [🔗/mehedi-shafi/cf\\_solve\\_tracker](https://github.com/mehedi-shafi/cf_solve_tracker)

- Uses CodeForces API to grab user data for any particular contest
- Public API exposed to use.
- **Google Sheet automation script** to use directly from spreadsheet.

## LINKS

 /mehedi-shafi  
 /mehedi-shafi  
 /@mehedishafi

### PROTHOM-ALO SCRAPPER

DEMO SCRAPPING OF LOCAL NEWSPAPER HEADINGS

Project Repository:  /mehedi-shafi/prothom-alo-scrapper

- Crawl archives to generate url.
- Scraps headlines from any given date or date range.

### LIGHTSHIP MANAGEMENT SYSTEM

A SCHOOL MANAGEMENT SYSTEM

Project Repository:  /mehedishafi/lightship

- Attendance management
- Financial record management
- Exam management
- Student management etc
- Different levels of reporting

## CERTIFICATIONS

### DEEP LEARNING: SPECIALIZATION

5 COURSES | ONLINE | NON-CREDIT

Apr, 2020 | Coursera

Credential: UHG8957X4T8C

- Neural Networks and Deep Learning
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models

### IMAGE AND VIDEO PROCESSING: FROM MARS TO HOLLYWOOD WITH A STOP AT THE HOSPITAL

ONLINE | NON-CREDIT

Mar 2020 | Duke University | Coursera

Credential: U6MQGTT4B7SC

- Image representation, binarization
- Image compression, decompression, restoration
- Image segmentation, noise reduction

### MACHINE LEARNING

ONLINE | NON-CREDIT

Jan 2020 | Stanford Online | Coursera

Credential: 6JPNE2UXJDTN

- Linear regression, Logistic regression, Gradient descent
- Supervised learning, Unsupervised Learning
- Neural network
- Machine learning project designing
- Support vector machine