# Mehedi Imam Shafi

R&D Engineer | Data Scientist | https://mehedi-shafi.github.io mehedishafi@hotmail.com | +880-1920884121 | 1599 Dania, Dhaka, Bangladesh

# **SKILLS**

#### **MACHINE LEARNING**

Regression Support Vector Machines Naive 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, SQLITE

#### 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

- 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

- 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

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

#### LIGHTSHIP MANAGEMENT SYSTEM

A SCHOOL MANAGEMENT SYSTEM

- 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 HOLLY-WOOD 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