

# S.M. Raihanul Alam

GRADUATED FROM BANGLADESH UNIVERSITY OF ENGINEERING AND TECHNOLOGY

(+880) 152-130-0267 | 1505010.smra@ugrad.cse.buet.ac.bd | hriday100 | Raihanul Alam | in Raihanul Alam Hriday | G S. M. Raihanul Alam

## EDUCATION

### Bangladesh University of Engineering and Technology

Dhaka, Bangladesh

BACHELOR OF ENGINEERING IN COMPUTER SCIENCE AND ENGINEERING

THESIS SUPERVISOR: MD. SAIDUR RAHMAN, THESIS CONCENTRATION: BIOINFORMATICS, PHYLOGENY, GRAPH THEORY

January 2020

- Rajshahi College, Rajshahi, Bangladesh — Higher Secondary Certificate 2015, GPA: 5.00 (Board General Scholarship)
- Seroil Government High School, Rajshahi, Bangladesh — Secondary School Certificate 2013, GPA: 5.00 (Board General Scholarship)

## TECHNICAL SKILLS

<b>Programming Languages</b>	C, C++, Java, Python, Assembly (80x86), HTML, CSS, PHP, Dart, Javascript
<b>Machine Learning Libraries</b>	scikit-learn, Tensorflow
<b>Mobile Application Development</b>	Android, Flutter, Android Studio
<b>Frameworks</b>	Laravel, Node js, React, Vue, Bootstrap, Java FX, OpenGL
<b>Database</b>	Oracle, MySQL, MongoDB, Redis
<b>Tools and Simulators</b>	Lucidchart, Git, Wireshark, NS-2, Packet Tracer,
<b>Operating Systems and Embedded Systems</b>	Windows, Linux, xv6, Kali-Linux, Metasploit
<b>Environment</b>	CLion, Pycharm, IntelliJ, PhpStorm, Emu8086, Visual Studio Code
<b>Other</b>	Docker, Kubernetes, ELK Stack, L <sup>A</sup> T <sub>E</sub> X, Wordpress, Microsoft Office, Powerpoint,

## EXPERIENCE

### REVE Systems

JUNIOR SOFTWARE ENGINEER (R&D)

REVE Centre, Dhaka 1212

December 2020 - Present

### Shomonnoi Bangladesh (Non-profit Organization)

CHIEF TECHNICAL OFFICER (PART-TIME)

[www.shomonnoibd.com](http://www.shomonnoibd.com)

April 2020 - Dec 2020

### BUET Career Club

DIRECTOR WEBSITE MANAGEMENT (PART-TIME)

[www.buetcareerclub.org](http://www.buetcareerclub.org)

November 2019 - March 2021

### Online Sohopathi (Non-profit Educational Organization)

FORMER CO-FOUNDER, HR AND BACKEND DEVELOPER

105 Sukrabad Rd, Dhaka

September 2017 - November 2019

### Athena Science Academy

CHEMISTRY INSTRUCTOR (PART-TIME)

167 Eden Complex, Dhaka

February 2016 - April 2018

## PROJECTS

### PROFESSIONAL PROJECTS

#### Kloudtalk

[www.kloudtalk.com](http://www.kloudtalk.com)

BILLING SYSTEM

- Company Gitlab repository is kept confidential
- MySQL database
- Implemented several API and modules in java
- Worked with bash and python scripts
- Implemented IVR flow and gtts for text to speech conversion in python

## Base Dialer

### INSTANT MESSENGER

- Company Gitlab repository is kept confidential
- React frontend
- Nodejs backend to communicate with soft switch
- Implemented features similar to messenger

## Inventory Management System

### MINISTRY OF FOREIGN AFFAIRS, BANGLADESH

- Github repository is kept confidential
- MySQL database using global php backend
- Implemented using Laravel framework
- Features includes email authentication, real-time messenger
- Admin approval of orders and store keeper based storage management
- PDF generator integrated
- Used cron jobs to update certain tables of database on each month

[www.erequisition.com.bd](http://www.erequisition.com.bd)

## Shomonnoi Bangladesh

### NON-PROFIT ORGANIZATION

- Github repository is kept confidential
- MySQL database using global php backend
- Implemented using Laravel framework
- Organization list that provides relief help during pandemic.
- Developed it mainly to cope up with COVID-19 situation.

[www.shomonnoibd.com](http://www.shomonnoibd.com)

## ACADEMIC SOFTWARE PROJECTS

### Blood Cell Detection

#### MACHINE LEARNING PROJECT

- YOLO V5 algorithm for object detection
- Python programming language
- Compared results with faster R-CNN

### Text Classification

#### MACHINE LEARNING PROJECT

- TF-IDF and Naive Bayes Comparison on a dataset
- Python programming language

### ARP Cache Poisoning

#### SECURITY PROJECT

- User interface using python
- Experimented on Linux Operating system
- Basic cpp code
- No additional library used

### ParkIn: A Smart Parking App

- <https://github.com/hriday100/ParkInAndroid>
- MySQL database using php backend
- Implemented using Android Studio
- Used several Google Maps API
- Firebase authentication using email address
- Dynamic user interface

### Restaurant Management System

#### DATABASE PROJECT

- MySQL Database
- Implemented GUI using Java FXML
- MVC pattern maintained for all modules
- Dynamic user interface

### Online Multiplayer Carrom Board Game

#### JAVA NETWORKING PROJECT

- Implemented GUI using Java FXML
- Implemented fast and efficient network-based moves using Java UDP sockets
- Mutliplayer dynamic UI support

## Flappy Dragon Game in C

IGRAPHICS BEGINNER LEVEL PROJECT

- 2<sup>nd</sup> runner up in project showcase competition held in Bangladesh University of Engineering and Technology, 2017
- Implemented GUI using IGraphics in C

## HARDWARE PROJECTS

### Heart rate monitoring system

- Implementation of some modules using Arduino Uno
- Implementation of rest of the modules using ATmega32
- Wireless communication with GSM module using HC-05 bluetooth device

## HONORS AND ACHIEVEMENTS

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- Stood 3<sup>rd</sup> in National Science Olympiad - 2015
- Won the 2<sup>nd</sup> runner up prize at project showcase competition, CSE Fest, BUET, 2017
- Stood 15<sup>th</sup> in BUET Admission Test
- Board and Merit Scholarships for 8 successive terms in BUET
- Runner up in 7th NSysS poster presentation, 2020
- Best paper Honorary mention CHI'2021 for 'Unmochon'

## SELECTED PUBLICATIONS

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### 'Unmochon': A Tool to Combat Online Sexual Harassment over Facebook Messenger

*CHI Conference*

SULTANA, S., DEB, M., BHATTACHARJEE, A., HASAN, S., ALAM, S.M.R, CHAKRABORTY, T., ROY, P., AHMED, S.F., MOITRA, A., AMIN, M.A., ISLAM, A.K.M.N., AND AHMED, S.I.,(CHI 2021)

2021

### Understanding the Social Determinants of Mental Health of Undergraduate Students in Bangladesh: Interview Study

*JMIR Formative Research*

ANANYA BHATTACHARJEE, SM TAIABUL HAQUE, MD ABDUL HADY, SM RAIHANUL ALAM, MASHFIQUI RABBI, MUHAMMAD ASHAD KABIR, SYED ISHTIAQUE AHMED

2021/11/2

### 'Shada Baksho': a hardware device to explore the fears of using mobile phones among the rural women of Bangladesh

*ICTD Conference*

SHARIFA SULTANA, SHAID HASAN, KHANDAKER REAZ MAHMUD, S M RAIHANUL ALAM, SYED ISHTIAQUE AHMED

2019

## ADDITIONAL COURSES AND SPECIALIZATION

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### Machine Learning Foundations: A Case Study Approach

*Coursera*

CREDENTIAL ID: 39TXBAL3CMPV

May 2020

### Neural Networks and Deep Learning

*Coursera*

CREDENTIAL ID: RYNBBQB9TPCG

May 2020

### Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization

*Coursera*

CREDENTIAL ID: Y2D5YD2B899C

July 2020

### Structuring Machine Learning Projects

*Coursera*

CREDENTIAL ID: DWVPZ8M5DFUJ

September 2020

### Convolutional Neural Networks

*Coursera*

CREDENTIAL ID: XJXXRJA8Z4CL

October 2020