

## RESUME OF SYED OMAR FARUK (TOWAHA)

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### EDUCATION

B.Sc. (hons.)	<b>SHAHJALAL UNIVERSITY OF SCIENCE AND TECHNOLOGY</b> <b>Bachelor of Science in Physics</b> , Major in Physics, [ <b>second major in Computer Science and Engineering</b> ] December 2016. Dean's List: 5th Semester.
HSC	<b>SYLHET MC COLLEGE</b> Higher School Certificate, July 2011.
SSC	<b>THE AIDED HIGH SCHOOL, SYLHET</b> Secondary School Certificate, May 2009.

### RELEVANT COURSES UNDERTAKEN

- Data Structure
- Database Systems
- Software Engineering
- Computer Networking
- Web Engineering
- Algorithm Design and Analysis
- Computational Physics
- Basic Electronics

### PUBLICATIONS AND REVIEWS (INTERNATIONALLY PUBLISHED)

September 2018	<b>LEARNING RUST (REVIEWED)</b> Publisher: PacktPub, Birmingham, UK Publisher link: <a href="https://www.packtpub.com/application-development/learning-rust-video">https://www.packtpub.com/application-development/learning-rust-video</a>
February 2018	<b>BUILDING SMART DRONES WITH ESP8266 AND ARDUINO</b> Publisher: PacktPub, Birmingham, UK Amazon Link: <a href="https://www.amazon.com/Building-Smart-Drones-ESP8266-Arduino/dp/1788477510">https://www.amazon.com/Building-Smart-Drones-ESP8266-Arduino/dp/1788477510</a> Publisher Link: <a href="https://www.packtpub.com/mapt/book/hardware_and_creative/9781788477512">https://www.packtpub.com/mapt/book/hardware_and_creative/9781788477512</a>
December 2017	<b>INTRODUCTION TO RUST PROGRAMMING</b> Publisher: PacktPub, Birmingham, UK

SafariBook Link: <https://www.safaribooksonline.com/videos/introduction-to-rust/9781786466068>

Publisher Link: <https://www.packtpub.com/application-development/introduction-rust-programming-video>

March 2017

### **LEARNING C FOR ARDUINO**

Publisher: PacktPub, Birmingham, UK

Amazon Link: <https://www.amazon.com/Learning-Arduino-Syed-Faruk-Towaha/dp/1787120090>

Publisher Link: <https://www.packtpub.com/networking-and-servers/learning-c-arduino>

February 2016

### **JAVASCRIPT PROJECTS FOR KIDS**

Publisher: PacktPub, Birmingham, UK

Amazon Link: <https://www.amazon.com/JavaScript-Projects-Kids-Faruk-Towaha/dp/1785287176>

Publisher Link: <https://www.packtpub.com/web-development/javascript-projects-kids>

February 2016

### **RUST ESSENTIALS (REVIEWED)**

Publisher: PacktPub, Birmingham, UK

Amazon Link: <https://www.amazon.com/Rust-Essentials-Ivo-Balbaert/dp/1785285769>

Publisher Link: <https://www.packtpub.com/application-development/rust-essentials>

## **CO-CURRICULAR & VOLUNTEER ACTIVITIES**

2015-Present

### **REPRESENTATIVE, MOZILLA**

I have been representing Mozilla thus the open source officially from February 2015; Arranged a lot of awareness events and participated in a number of events of Mozilla. <https://reps.mozilla.org/u/soft/> , <https://mozillians.org/en-US/u/soft/>

2015-2016

### **PRESIDENT, CAM-SUST**

An astronomical organization; worked with astronomy to be spread among the school kids; organized events with NASA, UNICEF etc.; given talks to programs; nominated for Young Bangla Youth Award 2015; <http://cam-sust.org>

2013-2015

### **GENERAL SATRATRY, IT, CAM-SUST**

Designed and developed all technology related things needed for CAM-SUST including websites, mobile applications, management software etc.; <http://www.worldspaceweek.org/news/world-space-week-2014-bangladesh/> , <https://www.youtube.com/user/camsust>

2017-2018

### **TRAINER, CRI**

I trained to schools and college students programming under the research organization of Bangladesh Government.

- 2012-2018 **VOLUNTEER, PHYSICS OLYMPIAD**  
I had been volunteering Physics Olympiad since 2012 that includes managing the Olympiad, organizing the Olympiad, reviewing the question papers etc.  
<https://drive.google.com/file/d/0B20tuQExLUnITHBHRmhpakpCQVk/view?usp=sharing>
- 2014-2015 **ORGANIZER, WORLD SPACE WEEK**  
I organized World Space Week in Bangladesh for the first time along with an astronomical organization.
- 2016-2017 **PROBLEM SOLVER, uHUNT**  
I used to solve problems in uHunt. I solved 218 problems.  
<http://uhunt.onlinejudge.org/id/422853>
- 2014 **SOFTWARE DEVELOPER, SUST DRONE TEAM**  
I used to make software for drones when I was involved in the team. I was the only programmer and software developer at that time.  
<https://youtu.be/RrSb-jD5--4?t=11m2s>
- 2012 **CO-FOUNDER, CAM-SUST**  
I, along with few other students of my university, founded an Astronomical club on my campus. It is doing great being the first astronomical organization in my university and the city.

## SEMINARS AND CONFERENCES ATTENDED

- August 2018 **OPEN SEMINAR (PH.D)**  
Department of Physics, Shahjalal University of Science and Technology
- July 2018 **INTERNATIONAL CONFERENCE ON BANGLA SPEECH AND LANGUAGE PROCESSING, SYLHET**  
Department of CSE, Shahjalal University of Science and Technology
- January 2018 **5<sup>TH</sup> ANNUAL RESEARCH CONFERENCE, SYLHET**  
Mini Auditorium, Shahjalal University of Science and Technology
- March 2016 **INTERNATIONAL CONFERENCE ON PHYSICS, DHAKA**  
Atomic Energy Centre , Dhaka; BRAC University
- January 2016 **CONFERENCE ON RESEARCH FINDINGS, SYLHET**  
Mini Auditorium, Shahjalal University of Science and Technology
- November 2014 **SEMINAR ON IMPLEMENTATION OF RENEWABLE ENERGY, SYLHET**  
Central Auditorium, Shahjalal University of Science and Technology
- November 2014 **SEMINAR ON PROFESSIONAL SKILL DEVELOPMENT, SYLHET**  
Mini Auditorium, Shahjalal University of Science and Technology

- January 2013      **INTERNATIONAL CONFERENCE ON ADVANCES IN PHYSICS (ICAP 2013), SYLHET**  
Central Auditorium, Shahjalal University of Science and Technology
- November 2012      **ANNUAL PLANT TISSUE CULTURE & BIOTECHNOLOGY CONFERENCE, SYLHET**  
Mini Auditorium, Shahjalal University of Science and Technology
- November 2012      **INTERNATIONAL CONFERENCE ON ENGINEERING RESEARCH, INNOVATION AND EDUCATION (ICERIE), SYLHET**  
Central Auditorium, Shahjalal University of Science and Technology
- September 2011      **CSE CARNIVAL, SYLHET**  
Department of CSE, Shahjalal University of Science and Technology

### SEMINARS CONDUCTED

- November 2015      **CO-FACILITATOR, PHYSICS OLYMPIAD**  
Department of Physics, Shahjalal University of Science and Technology
- August 2014      **CO-FACILITATOR, SUST ASTRO CARNIVAL**  
CAM-SUST, Shahjalal University of Science and Technology

### LABORATORY EXPERIENCES

- January '13-Present      **INNOVATION LAB, SUST**  
I have been working with the Innovation Laboratory at Academic Building A (Satyendra Nath Bose Building), Shahjalal University of Science and Technology, Sylhet with a number of things like electronics, optics and IoTs.
- March '15-Present      **NON-LINEAR OPTICS LAB, SUST**  
I have been working in this laboratory with cluster computer's documentation and deep learning experiments.
- February '17-Present      **BIO-PHYSICS, SUST**  
I have been working with this lab for some technical stuffs like networking and security issues.

### WORK EXPERIENCE

- Jan '16 – Present      **AUTHOR AND REVIEWER, PACKTPUB**  
Wrote and published a number of books and videos related to recent technologies. Also reviewed a number of contents.
- Mar '17 – May '18      **CO-FOUNDER AND CTO, HEXIT**

A tech startup; Acted as the CTO and also worked as an iOS mobile application designer and developer; handled clients; lead a group of 20+ people; had experience with big data analysis

Jan '16 – Feb '17

**SOFTWARE DEVELOPER, SWAPNOBANGLA GROUP**

Designed and developed desktop software; worked with the web development team;

## PERSONAL BACKGROUND

I am fluent in English and Bangla. I have practical experience with a number of programming languages including C, C++, JAVA, Python, R, Swift, C#, Rust etc. I have a strong background with server side programming and networking along with big data analysis and neural networking. I have a good proficiency in algorithm designing and making tasks simpler for a computer. I am a super-fast learner and I know how to do things in the shortest possible ways with simplest techniques. I do have a practice to keep things documented.

## TECHNICAL SKILLS

**Proficient:** C, C++, Java, Python, R, Swift, C#, Rust, JavaScript, Shell Script, MATLAB, SASS, MySQL, SPSS, Arduino, Microcontroller Programming.

**Tools and Software:** AutoCAD, Fusion360, Microsoft Office Products, Adobe Products, JetBrains Products, Stata, Hadoop, ArcGIS.

**Familiar:** CAD-CAM, Cura, Slic3r, DDesignSpark, Apache Spark, BigQuery, WPS, WRF.

## AWARDS AND SCHOLARSHIPS

December 2015

**Joy Bangla Youth Award**

Awarded for spreading astronomy all over Bangladesh

January 2010-'11

**School Secondary Certificate Scholarship, Bangladesh Government.**

Awarded for outstanding results in Sylhet Division.

January 2008-'10

**Rotarian Scholarship, Rotary Club.**

Awarded for outstanding results in Sylhet Division by the Rotary Club Bangladesh.

February 2006

**Junior School Scholarship, Bangladesh Government**

Awarded for outstanding results in Sylhet division.

January 2003

**Primary School Scholarship, Bangladesh Government**

Awarded for outstanding results in Sylhet division.

## OTHER PROJECTS

### System:

#### **Cluster Computer:**

Bash Script, Neural Networking, Big Data Analysis,

#### **Linux:**

From driver script to building software for Arch Linux, Ubuntu, Lubuntu, Kubuntu, Mint, Manjaro, CentOS, Linux Server.

#### **MacOS:**

Built software using Swift and Objective-C, Using Final Cut Pro and building some GPU driver for MacOS.

#### **Windows:**

All Windows OS, Microsoft software, Windows Server.

### Software Development:

#### **Management Software:**

School Management Software (Codeigniter, MySQL), Library Management Software (Perl, Koha, MySQL), Office Management Software (C#, ASP .Net, Oracle DB), Shop Management Software (Laravel, MySQL), Invoice Management Software (Java, Oracle).

#### **Game:**

Shoot if You Can (C#)

Extended Snake (C++)

#### **Utility Software:**

Jharudar (C#), Quick RAM Booster (C#)

#### **Control Software:**

Drone Flight Controller (Java, Oracle, Serial Communication, Processing), Drone System Control (C#)

#### **Information System Design:**

Drone Flight Management (Java)

### Hardware and Interfacing:

#### **Aerodynamics:**

Different types of drones like glider and multirotor.

#### **DIY Projects (Arduino and IoT):**

Energy Meter, RGB Color Mixing Lamp, Tilt Sensor Fun Project, Countdown Timer, LED Cubes, Smoke detector, Auto Call Answer using GSM Module, Security Alert, Fun with PIR sensor, Traffic Light Controller, Fingerprint Lock, Auto Directed solar System.

#### **CNC and 3D printer:**

Arduino Based CNC Plotter Machine, Arduino Based Laser Engraving Machine.

#### **Robotics:**

Line follower Robots, Face Detecting Robot, Car Number Plate detecting Eyes, Arduino Robotics Arm, RC car using WiFi or Bluetooth module and Smartphone, Blower Robot (Cleaner).

#### **Unfinished Projects:**

Interfacing Arduino and Raspberry Pi using serial communication, Raspberry cluster using network switch.

### **Mobile Applications and games:**

#### **For Android:**

Test Your eyes, Color Blind Test, Eye Tester Pro, PhotoText OCR Document Scanner, LikhiSHikhi, Proxy Free Attendance App, Teacher Assistance App, Anti-Theft Droid Protection.

#### **For iOS:**

Social Application like Instagram, No Gravity Game, iChat, My ToDo, Know Your Alcohol, Stopwatch, Tic-tac-toe, iStupid, AlertMe, Flappy Ghost, BMI Calculator, Super Note.

#### **For Firefox OS:**

Glowing Clock, Cat Age Calculator, Play Piano, Laws of Motion, Fox Memo, English to German Wordlist, FoxCal, Play With Dots, 2048 for Firefox OS, Shoot ASAP, Tap To Fly, Jump Cookie Monster.

### **Web Development:**

Several personal websites, online portal, User Registration sites, online shop management system.

### **Computer Graphics:**

Mobile Applications Design, Video Editing With Final Cut Pro and Adobe After Effects, Logo Design.

## **MEMBERSHIP AND SOCIAL AFFILIATIONS**

2014-2016                    **IEEE**  
Student Member

## **CERTIFICATES AND TRAININGS**

September 2016            **LICT Training (Java Track and Soft Skill)**  
Bangladesh Computer Council, Bangladesh ICT Division, License Number: G003859

June 2016                    **Java Course (Certificate of Completion)**  
SoloLearn, License: 1068-974415

June 2016                    **JavaScript Course (Certificate of Completion)**  
SoloLearn, License: 1024-794415

June 2016                    **C# Course (Certificate of Completion)**  
SoloLearn, License: 1080-794415

May 2016                    **SQL Fundamentals (Certificate of Completion)**  
SoloLearn, License: 1060-79415

June 2016                    **PHP Course (Certificate of Completion)**  
SoloLearn, License: 1059-794415