## Mehedi Hasan Masum

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### **EXPERIENCE**

- Software Engineer, CodeMarshal IT Systems Limited, Feb 2018-Present
  - Front- and back-end engineering work on Ronangon platform. Developed a web based gaming environment with ReactJS, Redux and PixiJS. Implemented real-time messaging backend from scratch with Django Channels
  - Co-authored the core REST architecture package for usage in different CodeMarshal products using Django Rest Framework
- Research Assistant, Robotics Lab, CSE, DU 2016-2018

Front- and back-end engineering and Machine Learning R&D for building a graphically programmable robotics kit, funded by Ministry of Education, Govt. of Bangladesh.

### **EDUCATION**

- Bachelor of Science in Computer Science & Engineering, University of Dhaka, Dept. of CSE,

  - CGPA: **3.81** (in scale of 4.0) Position: **3<sup>rd</sup>** (among 60 students)
  - Received University Scholarship for academic excellence in 2014-15
- Higher Secondary School Certificate, Notre Dame College, Dhaka, 2013
  - GPA: **5.0** (in scale of 5.0)
  - Education Board Scholarship in 2013 HSC examination (15<sup>th</sup> in national Talent Pool)
- Secondary School Certificate, Ideal School and College, Dhaka, 2011
  - GPA: **5.0** (in scale of 5.0)

### **VOLUNTEER EXPERIENCE**

- Executive member, CSE-DU Students' Club, 2015-2016
- Boy Scout, Bangladesh Scouts Dhaka Metropolitan, 2005-2008

### **PUBLICATIONS**

A framework for developing graphically programmable low-cost robotics kit for classroom education, Proceedings of the 10th International Conference on Education Technology and Computers, 2018

ISBN: 978-1-4503-6517-8 doi>10.1145/3290511.3290535

### **SKILLS**

- Key Concepts: Data Structures & Algorithms, Object Oriented Programming, Artificial Intelligence
- Competitive Programming: Graph theory, Geometry (About 300 solves in OJs across different problem categories)
- Languages: Proficient in Python, JavaScript with ES6, very good command over C++, Java
- Web Programming: NodeJS, PHP, ReactJS-Redux and friends, jQuery
- Database: MySQL, PostgresSQL, GraphQL, NoSQL
- Mobile Development: Android SDK
- Operating System: MS Windows, Ubuntu
- Misc.: Git, AWS Solutions Architecture, Team leadership

### **HONORS**

### **Competitive Programming**

Represented University of Dhaka in ACM-ICPC Asia Dhaka On Site Regional Contest (DU\_Introspection), 2015

### **Software Competitions**

- Amazon Life Hack Challenge: Best Student Software, 2018
- Ford Hack and Role Indore: Second Prize, 2017
- Cisco Spark Industry Challenge: Best Education Bot, 2017
- **Microsoft** Visual Studio Marketplace Hackfest: Best Mobile Application, 2016
- Redhat Code Healthy with OpenShift: Best Student Software, 2016

## Slack with Voice (Winner, Amazon Hackathon) | 2018

- Unofficial Amazon Alexa skill written in NodeJS that connects Slack workspace with Amazon Echo
- Implemented Account Linking for Echo users to connect to Slack and leveraged Slack API to send and receive messages

### Bear (Winner, Cisco Hackathon) | 2017

- A NodeJS classroom bot that automates repetitive and time-consuming replies from the Professors using NLP and help professors conduct in-class poll and quiz
- Worked as Full Stack developer and made open source contribution in Howdy.ai Botkit

## WiChat (Winner, Microsoft Hackathon) | 2016

- A Snapchat like Android application for sharing texts and doodles that connects nearby users by creating WiFi Hotspot
- Built a server-client based model from ground up using Java Socket & implemented bitmap caching for fast loading of Chatroom UI with large set of images

### Apprise (Winner, Ford Hackathon) | 2017

- A Reddit like Android utility for sharing road safety issues to draw local authority's attention
- Worked as Full Stack developer, integrated Mapbox SDK and implemented lazy loading of safety flags on map

## Overdrive (3rd Year SDP Project) | 2016

- A DropBox like file hosting and sharing utility intended for local networks (i.e. lab/classroom) built with C++ and POCO Libraries
- Reduced response time by 15-20% by implementing AJAX based folder navigation in the frontend

## LiveHealthy (Winner, Redhat Hackathon) | 2016

- A PHP Web app for Physicians to handle appointments & visualize health data synced across multiple devices of the patient. Pairs with a mobile app named HealthPal for patient.
- Worked as Team Leader and Full Stack developer, built a responsive web app and a major portion of the mobile app

#### REFERENCES

### Dr. Saifuddin Md. Tareeg

Professor, Dept. of Computer Science & Engineering University of Dhaka Director, Robotics Lab, CSE, DU E-mail: smtareeq@cse.du.ac.bd

### **Hasnain Heickal**

Assistant Professor, Dept. of Computer Science & Engineering, University of Dhaka Programming contest trainer, DU E-mail: hasnain@cse.du.ac.bd