

# 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.

## VOLUNTEER EXPERIENCE

- **Executive member**, [CSE-DU Students' Club](#), 2015-2016
- **Boy Scout**, [Bangladesh Scouts Dhaka Metropolitan](#), 2005-2008

## 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, PostgreSQL, GraphQL, NoSQL
- **Mobile Development:** Android SDK
- **Operating System:** MS Windows, Ubuntu
- **Misc.:** Git, AWS Solutions Architecture, Team leadership

## EDUCATION

- **University of Dhaka, Dept. of CSE**

Bachelor of Science in **Computer Science & Engineering**, 2018

  - 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
- **Notre Dame College, Dhaka**

Higher Secondary School Certificate, 2013

  - GPA: **5.0** (in scale of 5.0)
  - Education Board Scholarship in 2013 HSC examination (**15<sup>th</sup>** in national Talent Pool)
- **Ideal School and College, Dhaka**

Secondary School Certificate, 2011

  - GPA: **5.0** (in scale of 5.0)

## 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, Tokyo, Japan — October 26 - 28, 2018

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

## 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

## PROJECTS

### 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. Tareeq

Professor, Dept. of Computer Science & Engineering  
University of Dhaka  
Director, Robotics Lab, CSE, DU  
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### Hasnain Heickal

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