

Md Ashfaqur Rahaman

Research Interests

My research interest is in the intersection of data center networking, operating systems and compilers. I want to work on problems where coordination between these is needed to improve system performance.

Education

Aug. 2021 **Ph.D. in Computer Science**, *University of Utah*, Salt Lake City, Utah, USA.

2012-2019 **B.Sc. in Naval Architecture and Marine Engineering**, *Bangladesh University of Engineering and Technology (BUET)*, Dhaka, Bangladesh.

Experience

Research

2019-2021 **Voluntary Research Assistant**, *Prof. Baris Kasikci's Lab*, University of Michigan, Ann Arbor.

Mentor: Tanvir Ahmed Khan

I worked on profile guided optimizations of large application binaries in [warehouse scale computers](#) to reduce i-cache misses.

2018-2019 **Research Assistant**, *Climate Modeling and Simulation Lab*, IWFM, BUET.

Advisor: A.K.M. Saiful Islam

I worked as a system developer in [Flash Flood Early Warning System \(FFEWS\)](#) project. We have developed a real time flash flood warning system by integrating weather, hydrologic and river modeling systems into a single platform.

Professional

2018-2019 **Software Engineer**, *NextGen DigiTech*, Dhaka.

Worked on [NextGen Tower](#), a desktop application for designing wind turbines. I contributed in the core software architecture and developed the GUI.

2017-2018 **Firmware Engineer**, *2RA Technology Limited*, Dhaka.

I worked on various embedded projects based on Raspberry Pi and AVR Microcontrollers.

Competitions

2018 **Google Kickstart Coding Competition**, *Google*.

Participated in the qualification round and solved all the problems.

2016 **RoboSoccer Competition**, *Engineering Student Association Bangladesh (ESAB)*.

My team got honorable mention in the competition.

2015 **Model Ship Propulsion Competition**, *BUET*.

My team secured third position. I worked in programming and hardware interfacing part

2015 **Android App Contest**, *EATL-Prothomalo*.

We developed an Android application for checking OMR sheets by using image processing algorithms. Our app was in the top 100 list.

Bachelor Thesis

Title *Power Efficient Remotely Operated Underwater Vehicle Using Buoyancy Chambers*

Supervisor Dr. Md. Mashud Karim

Courses

- Operating System and System Programming CS162, UC Berkeley
- Digital Design & Computer Architecture, Prof. Onur Mutlu
- Compilers CS143, Stanford
- Mathematics for Computer Science 6.042J, MIT OCW
- Introduction to Algorithms 6.006, MIT OCW
- Practical Programming in C 6.087, MIT OCW

Skills

Languages	C, C++, Python, JAVA, Assembly(AVR, X86), Shell script, SQL, PHP, HTML, CSS
Tools	LLVM, Linux perf, eBPF, XDP, BOLT, Awk, Flex/Bison, Qt, Android
Embedded	AVR Microcontrollers, Raspberry Pi, Arduino
Text Editing	Vim, \LaTeX