

FAHIM AHMED

Sr. Software Engineer

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SUMMARY

Aspiring software engineer, currently lead developer of Audio & Video Engine for iOS [FirstNet-PTT](#) solution. Proficient in algorithms, data-structures, and design-patterns. Experienced in Competitive Programming ([Top 3% in HackerRank](#)). Interested in designing new systems, architectures and building scalable products hands on. Open to explore new opportunities that align with the vision to expand my skillset.

INDUSTRY EXPERIENCE

SAMSUNG RESEARCH, DHAKA, BANGLADESH

SENIOR SOFTWARE ENGINEER

April, 2020 - Present

SOFTWARE ENGINEER

April, 2018 – March, 2020

- Awarded Icon Engineer of The Month ([May, June 2019](#))
- Awarded Team of The Year, 2018 ([as member of team iOS Gear 360 Manager](#))
- Achieved Certification from Samsung Electronics for passing Software Competency level of Professional. (June, 2018) ([Globally 2nd Most Prestigious Competency](#) in Samsung).
- Worked onsite in [Samsung HQ, South Korea](#) & [Samsung Research Bangalore, India](#) for 6+ months (R&D Collaboration)
- Regular arrangement of in-team mentoring for best practices, usage of algorithm & DS, software system design, etc.
- [FIRSTNET \(U.S.A\) PUSH-TO-TALK](#)
A "Mission Critical" emergency communication solution for FirstNet (USA) based on the public safety standards set by the Third Generation Partnership Project (3GPP). Provides various features for emergency communication including Audio-Video Communication, Emergency Alert & Positioning, etc. in various platform including iOS & android.
 - Took ownership of native iOS Audio & Video Engine Module. Coded about 40% of Audio, 65% of Video Engine.
 - Hands on experienced with several video compression algorithms (i.e: H.264, H.265, AV1, etc) and optimizations.
 - The developed Audio-Video engine achieves higher quality in lower bandwidth compared to market standards.
 - Feature development in other modules. Such as-
 - Network core for secured SIP & HTTP Communication
 - VoIP Push (APNS) Handling
 - Call Manager Module.
 - Various Service Subscription Module.
 - Remote work with SEA (U.S.A) & SR (S.Korea) for project development & deployment.
 - Periodic Code Reviews & Design Reviews of 100% Codebase.
 - Arrangement of in-team knowledge transfer sessions for complete team synchronization regarding all updates.
 - [Developed in:](#) C++, Objective-C++ (Framework Development); Swift (Application Development).
 - [Frameworks:](#) AVFoundation, AudioToolbox, VideoToolbox, METAL, CURL, reSIProcate, OpenSSL, PushKit, CallKit, etc.
 - [Database:](#) SQLite (Application Side)
 - [Version Control:](#) Gerrit
- [GEAR 360 CAMERA MANAGER \(IOS\)](#)
 - Developed Image & Video Processing & Rendering Feature using Apple's METAL GPU Library.
 - Designed algorithms for image processing for Panorama, Infinite-Panorama, Fish-Eye, and 360 Views.
 - Developed in VIPER architectural pattern, following proper object-oriented principals.
- [OTHER LANGUAGES & FRAMEWORKS](#)
 - (Language) JAVA, Python, JS; (Framework) ReactJS, (Database) MySQL, Oracle, (Version-Control) Git, Gerrit

EDUCATION

MILITARY INSTITUTE OF SCIENCE & TECHNOLOGY (MIST), DHAKA, BANGLADESH

BACHELOR OF SCIENCE, COMPUTER SCIENCE & ENGINEERING

2014-2018

- CGPA: 3.36 (on a scale of 4.00)
- Competitive Programming Highlights:
 - Qualified for [ACM ICPC Asia Dhaka Regional 2015](#), ranked 30th. (MIST_Beginners, Out of 120+ teams.)
 - Personally achieved above 97% percentile in HackerRank.
 - Problem Setter & Judge in [Samsung Code Contest 2018](#)
- Recognitions:
 - Runner Up – App Development, IUT ICT FEST, 2017
 - MIST Best Coder of The Year 2015, 2014
- Publications:
 - [A New Algorithm to Compute Single Source Shortest Path in a Real Edge Weighted Graph to Optimize Time Complexity](#)
1st Author, 17th ICIS/IEEE, Singapore, 2018, ~400 Reads, 2 Citations.
 - [Smart Self Position Aligning Chair for a Modern Conference Room](#)
2nd Author, 17th ICIS/IEEE, Singapore, 2018; ~200 Reads, 4 Citations