

Mohammad Merajul Islam Molla

Email: meraj.enigma@gmail.com • Mobile: + (880) 177-682402 • Skype: mmm2177
LinkedIn: <https://www.linkedin.com/in/merajenigma> • Github: [imeraj](https://github.com/imeraj)
Banani, Dhaka, 1213, Bangladesh

Summary

About 10 years of industry and academic experience working with diverse technologies ranging from low-level system software to mobile/web applications, project management, company strategy & policy making, along with new business development and introducing new technologies to meet dynamic nature of tech industry.

Have experience working in multiple countries - USA, Japan, India, South Korea and with clients from different countries - USA, South Korea, Japan, and Australia. Good verbal and written communication skills and comfortable working with colleagues and clients from diverse culture.

INTERESTS: New Technology R&D, Software Architecture, Project Management, Mobile Application Development, Server-side Programming, Software Quality Assurance, Embedded Systems, Recruitment & Team Building

Experience

- CTO (Mobile Technology), Monstar Lab Bangladesh, Dhaka, BD** Jan 2017 - Oct 2017
- Supervised Mobile (iOS, Android), Infrastructure, and QA Teams.
 - Supervised projects: Earthcar (<http://www.earthcar.co.jp>) Taxi app (Android) - Uber like taxi booking app. Conducted R&D for iOS app.
 - Conducted regular trainings, tech talks, and internal tech sessions for high performance team building.
 - Was highly involved in recruitment, project estimation, employee evaluation, and company strategy determination.
- Senior Architect (Mobile Technology), Monstar Lab Bangladesh, Dhaka, BD** May 2016 - Dec 2016
- Built and supervised Mobile (iOS, Android) teams from scratch.
 - Worked as Tech Lead and Project Manager for mobile projects (iOS, Android).
 - Supervised projects: A2MILKBAR departmental store management app (iOS, Android, PHP/Node.js), Askul (<http://www.askul.co.jp>) - E-commerce App (iOS, Android).
- Chief Engineer (Mobile SW), Samsung R&D Institute Bangladesh, Dhaka, BD** Mar 2014 - May 2016
- Worked as Tech Lead of Samsung Gear S and Gear Fit Manager applications and managed 20+ team members.
 - Supervised multiple internal projects for iOS, Android and Tizen platforms - Log Analyzer, Emergency Service, TizenFlip, Samsung Guardian App, etc.
 - Managed small team of 3 members to contribution to open source project Linaro.
- Lead Engineer (Mobile SW), Samsung R&D Institute Bangladesh, Dhaka, BD** May 2012 - Mar 2014
- Worked as Team Lead of Call and Driver Teams of Feature Phone Mobile Commercialisation division and managed around 10+ team members.
 - Worked as Tech Lead of Qshare (Quick Share) project on Android platform.
- System SW Engineer (MAC OS Graphics Driver Team, NVIDIA, CA, USA)** Jan 2008 - Aug 2011
- Worked on various components of Display Drivers and core RM Software (Hotplug Architecture, Display Port, Mobile PCI Express Module (MXM), Interrupt Handling, DVI Port, HDCP Protocol, VBIOS, etc).
 - Implemented in C and x86 assembly.
- MTS Intern (CPD, VMware ESX Server Team), VMware, CA, USA** May 2007 - Aug 2007
- Developed Kernel Crash Dump tool for VMware ESX Server.
 - Implemented in C and bash script.
- MTS Intern (CPD, VMware ESX Server Team), VMware Inc, CA, USA** May 2006 - Aug 2006
- Developed Filesystem Debugger for VMware ESX Server.
 - Implemented in C and bash script
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Education

Marquette University, MS in Computing

Dec 2007

- CGPA: 4.00/4.00
- Final Project: Implementation of device driver for Broadcom's BCM4713 Ethernet card on Linksys WRT54GL router and integrating it with Xinu Kernel.

BUET, BS in CSE

Nov 2004

- CGPA: 3.92/4.00
- Thesis: Study of Various Popular Network Simulators and Case Studies using NS-2, Commonly Used Open Source Network Research Simulator, to Simulate Wired and Wireless Networks.

Technical Skills

Programming Languages: Swift • Java • Kotlin • Ruby • Elixir • Objective-C • C • C++
Assembly(x86, MIPS)

Mobile Platforms: iOS • Android

Mobile Architecture Patterns: MVC • MVP • VIP • RxVIP

Mobile Frameworks/Tools: RxSwift • ReSwift • RxJava • Reductor • Alamofire • Retrofit 2 • Gilde • Picasso • AlamofireImage • KingFisher • Firebase • Dagger 2 • ARKit • CoreML • Google Analytics

Web Frameworks: Phoenix • Ruby on Rails • Vapor

APM Tools: Scout • AppSignal

Quality Assurance: Cucumber • Calabash • XCTest • ExUnit • MiniTest

Infrastructure: Docker • Nanobox • Heroku

Database: Mysql • Sqlite • Realm • MongoDB • Redis

Project Management: JIRA • Redmine • Trello

Version Control: Git • Perforce • Subversion

Real-time Services: Pusher • PubNub

Miscellaneous: GraphQL • Protobuf • Blockchain

Professional Projects

Earthcar Taxi App (iOS, Android)

2017 (Ongoing)

Uber like Taxi app for Earthcar (<http://www.earthcar.co.jp>) Japan. Three different applications - User App (Android, Smartphone), User App (iOS, Smartphone) and Driver App (Android, Tab) along with backend APIs/services and front-end Admin panel.

- Worked as Tech Lead and Project Manager for mobile apps.
- Conducted R&D, designed app architecture, and guided engineers to implement features.
- Derived project estimation from client requirements, broke down features into sprints, worked with QA Engineers to define test specifications.
- Conducted code review and managed branch/release policies.
- Collaborated with backend engineers for smooth integration of APIs/services with mobile apps.

Askul E-commerce App (iOS, Android)

2017

E-commerce applications developed for Askul (<http://www.askul.co.jp>) Japan. Two different applications - one for iOS and another for Android

- Worked as Tech Lead and Project Manager for the project.
- Conducted R&D, designed app architecture, and guided developers to implement features.
- Conducted code review and managed branch/release policies.
- Backend APIs/services developed using Java (Spring Boot) by 3rd party in Japan.
- Conducted regular meeting and status reporting with Japan side project stakeholders.

A2MILKBAR App (iOS, Android)

2016

Departmental store management app developed for Australian client. Two different applications - one for iOS and another for Android platform along with backend APIs/services and front-end Admin panel.

- Worked as Tech Lead and Project Manager for the project.
- Conducted R&D, designed app architecture, and guided developers to implement features.
- Conducted code review and managed branch/release policies.
- Supervised backend APIs/services development using PHP and Node.js.

Samsung Gear S and Samsung Gear Fit Apps (iOS)

2015-2016

Developed commercial versions of Samsung Gear S and Gear Fit Apps to work with Tizen powered Gear S2 and Gear Fit 2.

- Developed in collaboration with Samsung HQ (South Korea).
 - Conducted R&D, designed and developed Basic Accessory Protocol (BAP) on top of Bluetooth Low Energy (BLE). The protocol supports - file transfer with pause/resume/cancel, CRC and retransmission, QoS
 - Designed and developed Webproxy module to support multiple Gear apps, such as - Weather, S-Voice, Voice Memo, etc.
 - Notifications using Apple Notification Center Service, along with notification settings, block notifications.
 - Samsung Gear S - <https://itunes.apple.com/us/app/samsung-gear-s/id1117310635?mt=8>
 - Samsung Gear Fit - <https://itunes.apple.com/us/app/samsung-gear-fit/id1117312500?mt=8>
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Academic Projects

Porting (Xinu) Operating System on Linksys WRT54GL Router

2006-2007

The purpose of the project is to port Xinu OS, developed at Purdue University, on a modified version of Linksys WRT54GL router. Linksys WRT54GL has BCM947XX chipset with MIPS processor (Broadcom's BCM3302) and comes with OpenWrt Linux distribution.

- Cisco & Intel Funded.
- Implemented exception and interrupt handler for the chipset and integrated it with Xinu.
- Programmed timer interrupt and integrated it with Xinu's context switch code to enable kernel pre-emption and support process scheduling.
- Implemented lower-half of interrupt driven asynchronous serial driver (UART 16550) for the router platform.
- Implemented Ethernet device driver for Broadcom's BCM4713 card on this platform.
- Implemented in C and MIPS assembly programming languages.
- Github link - <https://github.com/xinu-os/xinu>

Integrating Speex Codec in Columbia InterNet Extensible Multimedia Architecture (CINEMA)

2005

CINEMA is a set of SIP-based Internet Multimedia Servers for creating an Enterprise Telephony and Multimedia system. CINEMA consists of sipd (SIP redirect, proxy, and registrar server), sipconf (SIP Audio Conference Server), sipum (SIP/RTSP unified messaging system), sip323 (SIP-H.323 signaling gateway), rtspd (RTSP streaming media server).

- Integrated open source speex codec in sipconf conferencing server of CINEMA.
 - Supported two modes of speex codec - narrow-band (8KHz sampling rate) and wide-band (16KHz sampling rate).
 - Fixed several bugs in existing conference server to make the codec work properly within CINEMA architecture.
 - Tested integration of speex codec using Linphone.
 - Implemented in C++ programming language.
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Open Source Contribution

Linaro Project - <http://www.linaro.org>

2015

Led team of 3 engineers for making contribution to Open Source project ([Linaro](http://www.linaro.org)) - open source software for ARM SoCs and made decent contribution to their power management tools - powertop, powerdebug, idlestat, and pm-qa.

Achievement/Awards

- 2017 Ranked 2nd in Monstar Lab ISUCON Tech Olympics (Web App Performance Tuning contest)
- 2017 Promoted as CTO of Mobile Technology Division
- 2015 Won Employee of the Year Award (SRBD)
- 2015 Won Iconic Team award for iOS Gear Manager Team for 2H of Y2015 (SRBD)

- 2014 Nominated as Employee of the Year (SRBD)
- 2014 Iconic Team award for Android Development Team for 2H of Y2014 (SRBD)
- 2013 Achived Double promotion (promoted from Lead Engineer to Chief Engineer, SRBD)
- 2006-2007 Won Graduate Assistantship (Marquette University)
- 1999-2003 Won Dean's List Award (BUET)
- 1999-2003 Won University Merit Scholarship (BUET)
- 1996-2003 Won Board Merit Scholarship (Bangladesh Government)

Hobbies

Reading novels, music, movies, travelling