

# Mohammad M Molla *Toronto, Canada*

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## Summary

12+ 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 - Canada, USA, Japan, India, South Korea and with clients from different countries - Canada, USA, South Korea, Japan, and Australia. Good verbal and written communication skills and comfortable working with colleagues and clients from diverse cultures.

**INTERESTS:** New Technology R&D, Software Architecture, Web Application Development, Mobile Application Development, Software Quality Assurance, Security

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## Experience

### Staff Engineer (Web Technology), FlipGive Inc, Toronto, Canada

*May 2021 - Present*

- Working on Budget app fee payments feature by integrating with VoPay payment APIs
- Worked on integrating FlipGive apps with Datadog platform for logging and performance monitoring
- Worked on implementing inactivity fee feature to auto-charge periodic maintenance fee to inactive teams
- Integrated with Fiserv (<https://merchants.fiserv.com/en-us/products/small-business/all-solutions/gift-cards>) to add various merchants' (Tim Hortons, Sobeys, etc) giftcards with FlipGive including giftcards auto and manual reload support

### Lead Engineer (Web Technology), FlipGive Inc, Toronto, Canada

*Dec 2019 - May 2021*

- Worked as Lead Engineer of Backend Ruby on Rails team
- Integrated with Givex (<https://www.givex.com>) to add various merchants' (Indigo, Ultimate Dining Card, etc) giftcards with FlipGive including giftcards auto and manual reload support
- Worked on developing a team budget finance app to track income/expenses/transactions for teams' fundraisers. APIs developed using GraphQL
- Worked on transitioning FlipGive's current payment mechanism from Cheque to Bank Transfer by integrating with Hyperwallet (<https://www.hyperwallet.com>) and Plaid (<https://plaid.com>)
- Integrated Button (<https://www.usebutton.com/>) with FlipGive merchants network
- Designed and built an integration health dashboard to track affiliate networks' health

### Application Architect (Web Technology), Rakuten Inc, Tokyo, Japan

*Jun 2018 - Oct 2019*

- Worked as Technical Leader of Event Management Platform (EMP) Web Application (Spring Boot, Angular Js, jBPM, Batch, etc)
- Designed architecture of EMP based on Microservices (Spring Cloud, Spring Cloud Stream, Spring Cloud Contracts) and improved current monolith architecture
- Interviewed candidates, built teams, and trained members

### 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 Commercialization 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

## 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:** Ruby • Elixir • Go • Swift • Java • Objective-C

**Web Frameworks (Backend):** Ruby on Rails (Ruby) • Phoenix (Elixir) • Gorilla (golang)

**Web Frameworks (Frontend):** React • Phoenix LiveView • Rails with Haml/ERB

**Mobile Platforms:** iOS • Android

**Mobile Architecture Patterns:** MVC • MVP • VIP • RxVIP

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

**APM Tools:** Datadog • Prometheus • Scout • AppSignal

**Test Frameworks:** RSpec • ExUnit • Cucumber

**Infrastructure:** Docker • Kubernetes

**Database:** postgresql • Mysql • Sqlite • Realm • MongoDB • Redis • Elastic Search

**Project Management:** JIRA • ClickUp

**Version Control:** Git • Perforce • Subversion

**Real-time Services:** Pusher • PubNub

**Miscellaneous:** Microservices • GraphQL • Protobuf • gRPC • RabbitMQ • Kafka • Machine Learning (Scikit-learn, NumPy, Pandas) • Deep Learning (Keras)

## Open Source Contribution

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

2015

Led team of three 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

### **Xinu Project - <https://github.com/xinu-os/xinu>**

2006-2007

Made significant contribution to MIPS port of Xinu kernel - exception and interrupt handler, timer, ethernet driver, etc

## Technical Articles

My technical articles, specially on Elixir/Phoenix and emerging technologies are available on medium at - <https://imeraj.medium.com>

## Past Professional Projects

### **Earthcar Taxi App (iOS, Android)**

2017

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

### **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 re-transmission, 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>

## Achievement/Awards

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|------|---|
| 2021 | Promoted as Staff Engineer of Web Technology Division at FlipGive Inc               |
| 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 | Achieved 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)