

S. M. Faisal Rahman

Software Engineer

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Summary

Aspiring software engineer offering 3+ years of professional experience building customer focused web & mobile apps and leading sub-teams. Excited to work with distributed algorithms & design scalable products hands on. Tech I've worked with:

- **Java** (Android & J2EE, Spring boot)
- **Swift** (iOS)
- **PHP** (Laravel)
- **DBMS** (MySQL, Mongo, Oracle, Cassandra)
- **C/C++** (Clang, GCC)
- **Python** (OpenCV, Numpy, Pandas, Keras)
- **Cache** (Memcached, Redis)
- **Message Queue** (RabbitMQ, Kafka)
- **JS** (React, Vue, JQuery, Node, Express)
- **HTML, CSS**
- **Version control** (Git, Gerrit, p4v)
- **Virtualization** (Docker, Vagrant, VirtualBox)

Industry Experience

Software Development Engineer

March 2021

[Amazon \(AWS S3\), Cambridge, UK](#)

- Working to sustainably scale S3 Event bus to support a TPS of billions and onboard new use cases.

Full-stack Software Developer

February 2020 - February 2021

[European Bioinformatics Institute \(EMBL- EBI\), Cambridge, UK](#)

- Worked on Europe PMC ([Europe PubMed Central - europepmc.org](#))
 - Took ownership of system wide ORCID integrations (Java, Vue)
 - Solo implemented article storage microservice (Java, RabbitMQ)
 - Solo introduced new article claim feature (Vue, Java)
 - Contributed to complete reimplement of UI (Vue).
 - Took over development & maintenance of THOR project (www.ebi.ac.uk/europepmc/thor)
 - Introduced smart worker thread scaling in data consumer microservices to work regardless of underlying VM features (Java)

Software Engineer

April 2018 - December 2019

[Samsung R&D Institute Bangladesh \(SRBD\), Dhaka, Bangladesh](#)

- Awarded **Icon Engineer Certificate**, Achieved **SWC Professional Certificate** for programming competency
- **Social media app - iOS (Swift):**
 - Took ownership of feed and post modules
 - Designed content Feed engine to
 - Flexible SDK architecture design for Samsung Cloud interfacing
 - Optimized Gif player (not present in iOS natively)
 - Periodic code reviews & design reviews (100% of codebase)
 - App cache design & implementation
 - 80% unit test coverage in SDK
 - Coded about 30% of the complete codebase
- **Arctecture (drawing app) - Android (Java, C++):**
 - Retained a rating 4.3 with 1M+ users
 - Designed & implemented Permission Controller module
 - Written a custom build system for Native C++ codebase
 - Ported legacy code to Android Studio
 - Adapted complete legacy GNU C++ codebase for Clang
 - Optimized C++ codebase to introduce ARM64 compilation
 - Continuous improvement of C++ POSIX thread management
 - Developed internal tools for proper dependency updates

Remote Software Engineer

November 2017 - April 2018

[Far-East IT Solutions Limited, Dhaka, Bangladesh](#)

- **Flight booking system - Laravel backend (Designed 100% of the product):**
 - Designed REST API backend following MVC design pattern from scratch
 - Designed search cache (Redis)
 - Designed & deployed full MySQL database
 - Docker orchestration (unreleased)
 - Bulk SMS/Email message queue
- **Flight booking system - ReactJS admin panel (Coded 50% & Released):**
 - Implemented Client side search & filter
 - Integrated payment gateway (BKash)
 - Bulk SMS and email dashboard
- **Flight booking system - ReactJS user site (Released & handled 30% issues):**
 - User verification
 - Landing page

Software Engineering Intern

December 2016 - January 2017

[Solution Art Ltd, Dhaka, Bangladesh](#)

- **Bangladesh Coast Guard eDocument management system - PHP:**
 - Requirement Analysis & Proposed system design
 - Proposed detailed UX flow & Infrastructure requirements.

Education

Bachelor of science, Computer Science and Engineering

2014 - 2018

[Military Institute of Science and Technology, Dhaka](#)

- **Club affiliations:** MIST Robotics Club, MIST Computer Club; *increased 30% budget savings automating event management and payment tracking gaining much smoother user experience. OpenCV based image processing for initial screening of receipts.*
- **Thesis:** A proposed transport layer security mechanism for IoT multicast protocol suite and simulated performance comparison

(key: DTLS for multicast)