# S. M. Faisal Rahman

Software Engineer

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## Summary

**Aspiring software engineer** offering _2+ years of professional experience_ building customer focused _mobile & web app_ and leading sub-teams. Willing to work with distributed algorithms & design scalable products hands on. Tech I've worked with:

- **Java** (Android & J2SE)
- **Swift** (iOS)
- **PHP** (Laravel)
- **DBMS** (MySQL, MongoDB, Oracle)

- **C/C++** (Micro C, Arduino, Boost, Native mobile & Competitive programming)
- **Python** (OpenCV, Numpy, Pandas, Keras)
- **Cache** (Memcached, Redis)

- **JS** (React, Vue, JQuery, Node, Express)
- **HTML**, **CSS**
- **Version control** (Git, Gerrit, p4v)
- **Virtualization** (Docker, VirtualBox)

## Industry Experience

### Full-stack Software Development Engineer · 2020
European Bioinformatics Institute (EMBL- EBI), Cambridge, UK

- Working on Europe PMC (Europe PubMed Central)

### 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
- In-team mentoring for software competency, software system design & reliability engineering
- **Social media app - iOS (Swift):**
  - Took ownership of feed and post modules
  - Flexible SDK architecture design for Samsung Cloud interfacing
  - Periodic code reviews & design reviews (100% of codebase)
  - 80% unit test coverage in SDK
  - Designed content Feed engine to
  - Optimized Gif player (not present in iOS natively)
  - App cache design & implementation
  - Coded about 30% of the complete codebase
- **Artecture (drawing app) - Android (Java, C++):**
  - Retained a rating 4.3 with 1M+ users
  - Written a custom build system for Native C++ codebase
  - Adapted complete legacy GNU C++ codebase for Clang
  - Continuous improvement of C++ POSIX thread management
  - Designed & implemented Permission Controller module
  - Ported legacy code to Android Studio
  - Optimized C++ codebase to introduce ARM64 compilation
  - 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 & deployed full MySQL database
  - Designed search cache (Redis)
  - Docker orchestration (unreleased)
  - Bulk SMS/Email message queue
- **Flight booking system - ReactJS admin panel (Coded 50% & Released):**
  - Implemented Client side search & filter
  - Bulk SMS and email dashboard
  - Integrated payment gateway (BKash)
- **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
  - Prepared UX guideline
  - Proposed system design
  - Designed data model

## 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)
- **Recognition:** Scholarship Allowance