

# S. M. Faisal Rahman

Software Engineer

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## Summary

**Aspiring software engineer** offering *4 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)
- **DBMS** (MySQL, Mongo, Oracle, DynamoDB, Cassandra)
- **C/C++** (Clang, GCC)
- **Python** (OpenCV, Numpy, Pandas, Keras)
- **Cache** (Memcached, Redis)
- **Message Queue** (Kinesis, RabbitMQ, Kafka)
- **JS** (React, Vue, JQuery, Node, TypeScript)
- **HTML, CSS**
- **Version control** (Git, Gerrit, p4v)

## Industry Experience

### Software Development Engineer

March 2021

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

- Working for s3-eventbus team:
  - Developed peer reviewed scaling process for OnCalls to do scaling with 1/3rd developer time.
  - Created canary infrastructure from scratch for S3 & EventBridge integration.
  - Parallelizing event stream batching to cut execution time by 80% and seeing significant improvement in large regions.
- Created infra as code pipeline for all DB resources taking resource approval delays out and saving around \$10k/month on naively provisioned database capacity.
- Reduced deployment time ~15% by optimizing integration tests (from 3.5 hours to 12mins).
- Working on next gen durable event streaming to improve recovery time in case of a bad host or TPS spikes.

### 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 introduced new article claim feature (Vue, Java)
  - Took over development & maintenance of THOR project ([www.ebi.ac.uk/europepmc/thor](http://www.ebi.ac.uk/europepmc/thor))
- Solo implemented article storage microservice (Java, RabbitMQ)
- Contributed to complete reimplement of UI (Vue).
- 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
  - Flexible SDK architecture design for Samsung Cloud interfacing
  - Periodic code reviews & design reviews (100% of codebase)
  - 80% unit test coverage in SDK
- **Arctecture (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 content Feed engine to
- Optimized Gif player (not present in iOS natively)
- App cache design & implementation
- Coded about 30% of the complete codebase
- 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
- **Flight booking system - ReactJS admin panel (Coded 50% & Released):**
  - Implemented Client side search & filter
  - Bulk SMS and email dashboard
- **Flight booking system - ReactJS user site (Released & handled 30% issues):**
  - User verification
- Designed search cache (Redis)
- Docker orchestration (unreleased)
- Bulk SMS/Email message queue
- Integrated payment gateway (BKash)
- Landing page

## 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.*