

NISHAT ANJUM

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Summary

Senior Software Engineer with a decade of impressive background in designing and developing enterprise-level software solutions. My expertise lies in JAVA and JVM-based technology stacks, software design patterns, and development methodologies. After scrutinizing my passion, comprehensive work experience, and definitive ambition, I have decided to pursue a research route Master's Program in my field of interest, which I believe will lead me to a career as a Computer and Information Specialist in the future.

Education

University of Dhaka

Dhaka, Bangladesh

BSc. (Honours) in Computer Science and Engineering

2007 - 2011

- **CGPA:** 3.37/4.00 (3.40 in last 2 academic years)
- **Merit Position:** 14th out of 45 students
- **Courses:** Software Engineering, Database Management System, Operating System, Computer Networks, Data Communication, Data Structures, Algorithms, Discrete Mathematics, Theory of Computation, Database, Artificial Intelligence
- **IELTS:** Overall Band Score **7.5** [L-9, R-7.5, W-7, S-6.5]

Research Interests

Software Engineering, Empirical Software Engineering, Application of Machine Learning in Software Engineering, Database and knowledge-base systems, Data Mining, Data Visualization, Human Computer Interaction.

Academic Research

Title: Throughput Maximization in Device to Device(D2D) Enabled Cellular Network

University Of Dhaka

Supervisor: Professor DR. MD. ABDUR RAZZAQUE

2012

- In this work, We addressed the spectrum-sharing problem between **cellular and underlying D2D communication**. Our main goal was to maximize the throughput of the underlying 3G cellular network in non-orthogonal Resource-Sharing mode. We proposed a **Scheduled resource-sharing Algorithm** for eNodeB that intelligently identified potential D2D connection pairs and optimally shared **UpLink** and **Down-Link** resources. The algorithm calculated The **SINR** of each cellular and probable D2D pairs and selected the resource with optimal SINR for sharing with D2D pair.

Technical Expertise

- Language:** Java, Python, C/C++, JavaScript, TypeScript, R
- Frameworks:** Spring-(Boot, Security, MVC, Webflow, Data JPA, Batch, Hateoas, GraphQL), Python Flask, Angular, Hibernate, JPA, Mockito
- Web Services:** REST, SOAP
- Middlewares:** WebLogic, WildFly, Tomcat, TomcatEE, Glassfish
- Databases:** MySQL, Oracle, PostgreSQL, In-memory Data Structure Store-REDIS, Cloud Object Storage - MINIO
- Tools:** Maven, Gradle, Ant, Postman, Git, Bitbucket, Docker
- OS Platforms:** Linux, Windows, Mac
- Big Data:** Kafka, Apache KUDU, Apache Spark, Apache Druid, Elasticsearch

Work Experience

TigerIT Bangladesh Limited.

Dhaka, Bangladesh

Senior Software Engineer

Oct 2019 - present

- Supervising a team of four software engineers to ascertain the successful completion of deliverables of **four country-scale projects**.
- Perform various RnD and provide expert support and guidance on architectural changes in ongoing initiatives taken by the company.
- Continuously contribute to troubleshooting issues in production deployment and performance tuning.
- Review code for defects and quality against technical documents and standard practices.

Software Engineer

Jan 2016 - Sept 2019

- Extensively re-engineered legacy software system to improve scalability and **increased performance by approximately 35%**.
- Core architect of a large-scale data migration project involving a highly complex process that successfully migrated approximately **120M Demographic and Biometric data within 42 hours**.
- Developed High volume and low latency Restful APIs for various client applications serving **responses less than 30ms**.
- Developed data streaming pipeline using Apache Kafka that combine messaging and storage of both historical and real-time data.
- Developed a high-performance real-time fast data Analytics application using **Apache Druid, Kudu, and Kafka**.
- Designed and developed Report modules for multiple ongoing projects which involved complex query writing.
- Assisted the Junior Software Engineers in solving technical problems and mentored them in writing high-quality code.

- Worked with Technical Staff to understand problems with software and correct them.
- Developed new features for the **MAR module** of The Therap application.
- Wrote a successful migration script incorporating ETL process to store lookup standard diagnosis codes (e.g. ICD-9/10).
- Solved user reported bugs of different modules in the Therap Application.
- Learning and experimenting the usability of various technologies in The Therap application.

- Learning, installing and reviewing various technologies related to software development.
- Investigated users reported bugs in the codebase and resolved them.
- Did code refactoring to increase readability and performance in different modules.

Industrial Projects

Bangladesh NID application System

TigerIT Bangladesh

Technology Stack: [Spring MVC, Spring Security, JSP, Semactic-UI, JQuery]

- An online public portal where citizen of Bangladesh can apply for NID card and voter registration

Rohingya AFIS And AFRS adjudication System

TigerIT Bangladesh

Technology Stack: [Python Flask, Angular.js, Spring Boot, Quartz Scheduler]

- An application which ceaselessly verifies new voter applications with Rohingya AFIS and AFRS database

CMS system for Election Commission Officials

TigerIT Bangladesh

Technology Stack: [Spring Boot, Spring Security, JWT Token, JSP, Bootstrap, vue.js]

- Web Application for bangladesh election commission officials to oversee voter registration and NID card applications

Bangladesh Citizen data Migration Project

TigerIT Bangladesh

Technology Stack: [Spring Boot-Scheduling, JDBC, Apache Kafka, Redis]

- A data migration project to migration 120M voter demographic and biometric data to elasticsearch, Apache KUDU, Redis, Minio and Oracle database.

Nepal HSENP Registration System

TigerIT Bangladesh

Technology Stack: [Spring MVC, Spring Security, JSP, Semactic UI, JQuery]

- A online public portal where Nepal Citizen can apply for high security embossed number plate for their Vehicles.

Nepal HSENP Application management System

TigerIT Bangladesh

Technology Stack: [Spring MVC, Spring Security, Thymeleaf, Bootstrap, JQuery, Oracle database]

- A web application for nepal DOTM officials to supervise HSENP printing applications.

Nepal vehicle data migration project

TigerIT Bangladesh

Technology Stack: [Spring-Batch, Spring-Jdbc, Oracle Database]

- A data migration projects to migrate 35M vehicle data to Oracle database.

Bangladesh NTMC National Datahub Project

TigerIT Bangladesh

Technology Stack: [Spring Boot, Spring Security, JWT Token, Apache Kafka, Redis, GraphQL]

- An ETL project for bangladesh NTMC which accumulate Citizen data from multiple sources and make them accessible for

Vehicle Tracking System - Bangladesh NTMC

TigerIT Bangladesh

Technology Stack: [Alien JAVA SDK, MQTT, Caffeine Cache, Spring Boot, Spring Scheduling]

- The application unceasingly accumulates vehicle movement information by interfacing with Alien RFID Reader

Therap Application

Therap BD Ltd.

Technology Stack: [Spring MVC, JSP, EJB, Hibernate JPA, Oracle Database]

- Developed new feature in Medication Administration Record(MAR) module to record patient medication record
- Developed a migration project to store lookup standard ICD-9/10 diagnosis code into relational Database

Academic Projects

Buddy Circle-A Social networking web application

University Of Dhaka

Internet Programming

2012

- An application developed back in 2012 using spring mvc, jsp, html5, jpa, mysql

Tic Tac Toe Game using ATmega32 microcontroller

University Of Dhaka

Computer Peripherals and Interfacing

2010

- A multiplayer tic-tac-toe game written in C language for ATmega32 Controller

Dots and Boxes - Online Multiplayer Game

University Of Dhaka

Object Oriented Programming-JAVA

2010

- An online multiplayer game developed using JAVA Applet and socket programming

Avoid collision Game

University Of Dhaka

Programming Language Fundamental- C Language

2008

- A simple single player game developed using C i-Graphics library

Unix Shell

University Of Dhaka

Operating System

2009

- A simple bash like Unix shell which executed linux command using exec().