

NISHAT ANJUM

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Summary

I am a committed Software Engineer with a decade of substantial experience in developing and enhancing enterprise-level software solutions. Presently, I hold the position of Principal Software Engineer at an esteemed IT organization in my home country. My proficiency centers around JAVA, JVM-based technology stack, Big Data as well as software design patterns, and development methodologies. After a thorough assessment of my extensive professional background and unwavering career aspirations, I am dedicated to embarking on a research-focused Master's Program in Computer Science and its various sub-fields. I firmly believe that this academic pursuit will pave the way for me to establish a rewarding career as a Computer and Software Specialist in the future.

Education

University of Dhaka

Dhaka, Bangladesh

BSc. (Honours) in Computer Science and Engineering

2007 - 2011

- **CGPA:** 3.37/4.00 (**German System: 1.9**)
- **Merit Position:** 14th out of 45 students
- **Total Credit:** 148
- **Courses:** Software Engineering, Data Structures and Algorithms, Computer Programming Language, Database Management System, Operating System, Computer Networks, Data Communication, Discrete Mathematics, Theory of Computation, Artificial Intelligence
- **IELTS:** Overall Band Score **7.5** [L-9, R-7.5, W-7, S-6.5]

Research Interests

Artificial Intelligence and Machine Learning, Database and knowledge-base systems, Data Science and Data Analytics
Software Engineering, Application of Machine Learning in Software Engineering

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 underlaying 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 by calculating SINR for each 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

Tiger IT Bangladesh Limited.

Dhaka, Bangladesh

Principal Software Engineer

Oct 2022 - present

- Supervising and training a Development team of four software engineers.
- Providing technical guidance to the team and overseeing the technical aspects of four Government projects and upcoming Projects.
- Regularly attend team meetings to discuss projects, brainstorm ideas, and propose solutions to any issues.

Senior Software Engineer

Oct 2019 - Sept 2022

- Supervised a team of four software engineers to ascertain the successful completion of deliverables.
- Performed various RnD and provided expert support and guidance on architectural changes in ongoing initiatives taken by the company.
- Continuously contributed to troubleshooting issues in production deployment and performance tuning.
- Reviewed code for defects and quality against technical documents and standard practices.

Software Engineer

Dec 2015 - 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.

Therap BD Ltd.

Dhaka, Bangladesh

Associate Software Engineer

Oct 2014 - Dec 2015

- 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.

Junior Software Engineer

Aug 2012 - Sept 2014

- 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 - Banngladesh NTMC

TigerIT Bangladesh

Technology Stack: [Alient 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

2011

- 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

Object Oriented Programming-JAVA

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

University Of Dhaka

2010

Avoid collision Game

Programming Language Fundamental- C Language

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

University Of Dhaka

2008

Unix Shell

Operating System

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

University Of Dhaka

2009

Competition and Achievements

2015	Runner-Up , Women Table Tennis Tournament arranged by Therap BD. Ltd.
2007	Education Board Scholarship , HSC Board Exam
2005	Education Board Scholarship , SSC Board Exam

Dhaka, Bangladesh

Rajshahi, Bangladesh

Rajshahi, Bangladesh

Interests

Table Tennis	Table Tennis is my favorite sport of all. I engage in daily table tennis matches with my colleagues.
Workout	I am passionate about fitness. Some of my favorite activities are western yoga and low-impact aerobics.
Cooking	I love baking and Cooking. Baking my birthday cake gives me ultimate joy. I try out new recipes every weekend.
Traveling	I am an avid traveler. I explore both domestic and international destinations whenever the chance arises.
Music	Music I enjoy almost all types of music. However, primarily I love Soul, Country, Indi, pop, Psychedelic, OST, and K-Pop.

Languages

English	Professional proficiency
Bengali	Native proficiency
Hindi	Bilingual proficiency