NISHAT ANJUM

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Summary

Principal 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 the field of Software Engineering, which I believe will lead me to a 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 (3.40 in last two academic years)
- **Merit Position:** 14th out of 45 students
- **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

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 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 **DownLink** 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.
- **Improving the performance of existing software solutions.**
- Investigating Project-related objections and taking necessary measurements to ensure optimal software performance.
- Regularly attend team meetings to discuss projects, brainstorm ideas, and propose solutions to any issues.
- **Designing, coding, and debugging new projects.**

Senior Software Engineer   *Oct 2019 - Sept 2022*
- Supervised a team of four software engineers to ascertain the successful completion of deliverables of **four country-scale projects**.
- 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.
- Designing, coding, and debugging new projects

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
Jan 2013 - 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 Flusk, Angular.js, Spring Boot, Ouartz 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
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().

Competition and Achievements

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

Interests

Table Tennis Table Tennis is my favorite sport of all. I play table tennis with my colleagues every day at my workplace.

Workout I am a fitness freak. Some of my favorite activities are western yoga, low-impact aerobics, and Zumba.

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 travel around in my own country and abroad whenever I find a possible opportunity.

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