Md Sadman Sakib

Software Engineer

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📍 Dhaka, Bangladesh

💼 PROFESSIONAL EXPERIENCE

Software Developer
Penta Global LTD ⧉
02-2021 – 03-2022

- Collaborated in a system of **10+** microservices. Co-led a team of 3 engineers.
- Introduced a **ticketing service** that can handle complex queries and aggregate responses from various microservices.
  - **Stack**: Java Springboot
  - **Strategy**: Used **Redis with distributed locking** for caching and data aggregation.
- Redesigned an existing service of the legacy system.
  - **Stack**: Java Springboot
  - **Performance**: **1500**x faster on average than the earlier service.
  - **DB size**: **300M** live user data with **8K~10K** new data being added every day.
  - **Strategy**: Normalized and partitioned the table, created indexes on relevant columns, and used Redis for response caching.
- Implemented an iterative, time and memory-efficient **XML Document Parser/Purifier** that uses the **Breadth-First strategy.**
- Designed a **Query Manager** algorithm that greedily finds out the optimal strategy to perform range queries in a datastore and guarantees **maximal hits** to the cache server.

Software Engineer
Samsung R&D Institute, Bangladesh
04-2019 – 03-2021

- Implemented **pinch zoom** feature in Samsung DeX macOS client version.
  - Language: Objective C.
- Worked as a support engineer in the Development Team - Windows UWP platform for Samsung Notes.
  - Language: C++ and C#.
- Worked on a project based on IoT Test Automation Tool Development.
  - Language: Java.

📂 PROJECTS

Multi-level Balanced Caching Approach to Optimize Repeated Subgraph Queries - (Undergraduate Thesis)
2018

A Subgraph Isomorphism Query Model that can optimize runtime and memory while dealing with recurring subgraph queries. Used Hashing on Query Graphs and stored them in Splay Trees to optimize Recurring Query Graphs.

🧠 TECHNICAL SKILLS

Programming Languages
C,C++, Java

Project Management
GitHub, GitLab

Database Management and Cache services
MongoDB, MySQL, PostgreSQL, Redis, ElasticSearch

Frameworks, API Testing
Java Springboot, Postman

Identity Management
Keycloak

🧩 LEADERSHIP

Co-Founder & Editor - Shoshikkha.com
Shoshikkha is a Bengali learning platform that provides quality educative material, especially to CS students.
Visit: http://shoshikkha.com/

Problem Setter - InterviewKickstart
Set, developed, and reviewed 50+ problems in the leading global platform for technical interview preparation site.

Trainer & Coach - ULAB
Acted as the main trainer and coach for the competitive programmers of the University of Liberal Arts Bangladesh.

Trainer - DevSkill
An online live training platform. Trained and mentored 500+ students directly on DS&A and Competitive Programming.
For more: https://devskill.com/Instructor

🏅 AWARDS

Champion at NSU Power Buzz Programming Contest 2018 ⧉
2018
  Team Name: **DU_DudhBhaat**

10th (among 298 teams) at International Collegiate Programming Contest (ICPC Dhaka Site, Bangladesh) ⧉
ICPC
2018
  Team Name: **DU_PantaBhaat**

18th (among 270 teams) at International Collegiate Programming Contest (ICPC Amritapuri Site, India) ⧉
ICPC
2018
  Team Name: **DU_PantaBhaat**

📰 PUBLICATIONS

A Gray Box Interpretable Visual Debugging Approach for Deep Sequence Learning Model ↗
ICLR - 2019
2018

> In this work, we have developed a visual interactive web application, namely d-DeVIS, which helps to visualize the internal reasoning of the learning model which is trained on the audio data. The proposed system allows to perceive the behavior as well as to debug the model by interactively generating adversarial audio data point.
> **Paper Link:** https://arxiv.org/abs/1811.08374 ↗

17th (among 150 teams) at National Collegiate Programming Contest (NCPC) ↗
ICPC
2017

> Team Name: **DU_ColonThree**

Became Expert Coder at Codeforces ,purple coder in Codechef and solved 3000+ Algorithmic and Data Structure based problems in various online judges.

- Codeforces Handle: reverse_macro ↗
  Max rating: 1811* (Expert)

- Codechef Username: saadmaan007 ↗
  Max rating: 1981* (4* coder)

🎓 EDUCATION

University of Dhaka
B.Sc in Computer Science & Engineering
01-2015 – 12-2018

> Dates attended: **Jan 2015 - Dec 2018**
> Date of degree reception: **Aug 2019**