Md Liad Hossain

Software Engineer

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EDUCATION

BSC : Khulna University of Engineering & Technology, Khulna 9203

Department of Electronics and Communication Engineering

WORK EXPERIENCE

Software Engineer(Backend)   [Alice Labs Pte Ltd](#)

(10 March, 2024 - Present)

- **Workflow Automation project**
    - Developed backend systems using Python language and FastAPI framework.
    - Used Domain-Specific Language (DSL) to automate workflows.
    - Developed and integrated RESTful APIs to fetch and update data across various services.
    - Conducted research and implemented APIs for platforms Shopify, Salla, Zid, and WooCommerce, where Shopify uses Graphql and others use RestAPI.
    - Worked extensively with PostgreSQL to design and manage relational databases.
    - Wrote SQL queries for migrations and other feature needs.
    - Implemented Redis caching mechanisms to optimize API responses and improve application performance.
    - Handled Redis stream responses from another service to efficiently process events of revenue metrics.
    - Designed and implemented a Data Access Layer (DAL) for MongoDB in an object-oriented manner, enabling easy and reusable database interactions.
    - Refactored large codebase using the combination of state design pattern and command design pattern.
    - Implemented unit tests using Pytest library by mocking PostgreSQL, Redis and MongoDB.

- **Core Product**
    - Integrated office365 graph api and clevertap.
    - Optimized postgresql database query.
    - Refactored several exports by implementing batch fetching and batch processing.
    - Handled Gmail functionalities (Gmail body, all types of attachments, email signature etc.)

TECHNICAL SKILLS

- **Proficient in** Data Structures & Algorithms, Object Oriented Programming
- **Programming Languages:** C, C++, Python, JavaScript (Intermediate), React (Basic)
- **Front-end:** HTML, CSS
- **Back-end:** FastAPI, Django, MySQL, PostgreSQL, MongoDB, Redis, Celery
- **Other Technologies:** Rest API, GIT, Pytest, Pusher, GraphQL (Basic), Docker, Kubernetes (Intermediate)

ACHIEVEMENTS

- **CodeForces : Candidate Master (Max Rating - 1927)**   [ID : **Noctambulant**]
- **CodeChef :** 5-Star (Max Rating - 2028)   [ID : **poison08**]
- **AtCoder:** Max Rating 1343   [ID : **Noctambulant**]
- **LeetCode:** Max Rating 2201 (Top 1.12%)   [ID : **Noctambulant**]

PROGRAMMING CONTEST EXPERIENCES

- **Onsite**
  - Secured 14th (**officially 11th**) position in **ICPC Asia Dhaka Regional, 2022** (TeamName: KUET_ScatterBrains)
  - Secured **13th** position in **NCPC, 2023** (TeamName: KUET_Capricious)
  - Secured **17th** position in RUET IUPC 2022 (TeamName: KUET_Blaziken)
  - Secured **43rd** position in **ICPC Asia Dhaka Regional, 2023** (TeamName: KUET_ByteBlitz)
  - Secured **43rd** position in BUET IUPC 2022 (TeamName: KUET_Blaziken)
  - Secured **54th** position in **ICPC Asia West Continent Final, 2022** (TeamName: KUET_ScatterBrains)
  - Secured **54th** position in **ICPC Asia Dhaka Regional, 2021** (TeamName: KUET_Blaziken)
- **Online**
  - Secured **2nd** position in **Codechef Starters 93 Division-2** among 2k+ participants
  - Secured 151st position in Educational Codeforces Round 150 (Div-2) among 15k+ participants
  - Secured 216th position in Educational Codeforces Round 153 (Div-2) among 16k+ participants
  - Secured 235th position in Codeforces Round 986 (Div-2) among 10k+ participants
- **Meta Hacker Cup:** 2023(Round-2) **Rank:** 1568
- **300+** online contest participation in different online judges
- Solved **2500+** problems in different online judges

PROJECTS & THESIS

- Chat Application (**Source Code**)
- RFID based security system. (**Source Code**)
- Tiles Hop Game using Unity (Basic Level) (**Source Code**)
- Self Portfolio Project using React.js (**Source Code**)
- Protein Secondary Structure Prediction using Graph Neural Network with Ensemble Learning (**Source Code**)

RESPONSIBILITIES

- **Vice President:** Manipulators of Electrons Club (MEC), KUET
- **Organizing Secretary:** Special Group Interested in Programming Contest (SGIPC), KUET
- **Tester, Problem Setter and Judge:** Intra KUET Programming Contest, 2023