MAHIM MAHBUB | Jr. Software Engineer

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EDUCATION

B.Sc. Computer Science and Engineering   📅 *Feb. 2016 - Mar. 2021*

Bangladesh University of Engineering and Technology

CGPA: 3.93/4.00 (**Position:** 4th/142)

Relevant Courses: Object Oriented Programming, Data Structures & Algorithms, Algorithm Engineering, High Performance Database, Computer Security.

WORK EXPERIENCE

REVE Systems Ltd.   📅 *Feb. 2021 - Present*

Jr. Software Engineer

- Contributed to **Machine Translation** project.
- Designed, implemented and tested the first version of shipped Mobile App.

  Flutter   Dart   ObjectBox   Android Studio

- As a part of ML RnD team, experimented with various architectures for machine translation, including Transformers.

  PyTorch   TensorFlow

SELECTED PROJECTS

wQFM: Highly Accurate Genome-scale Species Tree Estimation from Weighted Quartets   ⌨ Mahim1997/wQFM-2020

- Developed new codebase to efficiently handle moderate to large datasets in terms of both running time and memory.
- Performed extensive statistical analysis to implement a novel dynamic partitioning scheme based on data distribution.
- *Citation:* **Mahim Mahbub**, Zahin Wahab, Rezwana Reaz, M Saifur Rahman, Md. Shamsuzzoha Bayzid, wQFM: Highly Accurate Genome-scale Species Tree Estimation from Weighted Quartets, Bioinformatics, 2021;, btab428 `https://doi.org/10.1093/bioinformatics/btab428`

Audio Feature Extraction and Classification   *(Ongoing)*

- Curated a dataset of > 5k audio files (average length: 5.2 mins)
- Extracted various features including MFCCs, mel-spectograms, ZCS & RMS.
- Experimented with models including CNN, Bi-LSTM & Bi-GRU.

Censorship Analyzer

⌨ Mahim1997/Censorship-Analyzer   JavaFX   Django   scapy   SQLite

- Implemented network based modules using scapy, tshark, and TOR API.
- Used Django framework for Web Platform, Java/JavaFX for Desktop Platform and SQLite for Database Backend.

Comprehensive analysis of CoMP networks

⌨ Mahim1997/CoMP-JT-Simulation   Java   MATLAB

- Developed codebase to perform simulations for 5G-CoMP networks under various conditions including Conventional, DPS and JT.
- Experimented with new metrics to efficiently model the scenario of call drop.

University Hall Management System

⌨ Mahim1997/Hall-Management   Java   JavaFX   Oracle

- Designed and developed a fully functioning University Hall Management System for Desktop Application with user friendly UI using JavaFX.
- Implemented efficient DBMS queries and procedures using PL/SQL with Oracle as Database backend.

SKILLS

Programming & Scripting Languages

Java   Python   Dart   C++   R   Bash

Databases

ObjectBox   Oracle   MySQL   SQLite

Frameworks and SDKs

Flutter   Django   JavaFX   OpenGL

Environments & Tools

Android Studio   IntelliJ   PyCharm   Git

Machine Learning Libraries

PyTorch   TensorFlow   scikit-learn   gensim

ACHIEVEMENTS

🎓 **Dean's List Awardee**
Received Dean's List award for all terms of undergraduate program.

🏆 **Champion team in COVID-19 Idea Contest, 2020**
⌨ Mahim1997/VChamber
Idea contest hosted by Computer Society IEEE, BUET Branch.

🏆 **Second Runner-Up in Poster Competition on Green Technology, 2020**
⌨ Rafi-ur-Rashid/Shongjog
Poster presentation competition hosted by Bangladesh Research and Innovation Society (BRIS)

🎓 **University Merit Scholarship**
Received University Merit Scholarship for all terms of undergraduate program.

🏆 **9th place holder in 6th Bangladesh Chemistry Olympiad, 2014**
National Chemistry Olympiad hosted by Bangladesh Chemical Society

🏆 **Recipient of Edexcel High Achiever's awards (World's Highest)**
A-Levels: Chemistry, Physics
O-Levels: Mathematics B

REFERENCES

Dr. Md. Shamsuzzoha Bayzid
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Department of Computer Science and Engineering
Bangladesh University of Engineering and Technology

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