# TAKRIM RAHMAN ALBI

## Software Engineer | Data Scientist

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in takrim-rahman-albi



#Python #Software Engineering #System Design #Distributed Systems



## **EDUCATION**

## BSc. in Computer Science and Engineering **BRAC UNIVERSITY**

**2016 - 2020** 

Dhaka, Bangladesh

CGPA - 3.54 out of 4

## **EXPERIENCE**

## Software Engineer (Lead) **PRMAX**

July 2022 - Ongoing

London, United Kingdom

### **Significant Contribution:**

- Lead Engineering team, Design Sprint and maintain Agile SDLC.
- Analyze requirements (BRD, SRS, API doc), design and deploy services as per requirements.
- Cron and Daemonize for automation, reporting and monitoring.
- Redesign monolithic system to a containerized microservice architecture (upgrade from python 2.7 to python 3.9).

## Software Engineer **UPAY (UCB Fintech Company Ltd)**

**December 2021 - April 2022** 

Dhaka, Bangladesh

#### **Significant Contribution:**

- Reduced transaction time from 1s to 300ms by implementing pub-sub model using NATS (nats-py).
- Optimized APIs and DB queries (ORM) using DB caching and distributed caching.
- Implemented several APIs and services using Django and DRF while integrating them in a containerized Microservice System.

## Software Engineer

### Go Zayaan Limited

March 2020 - December 2021

Dhaka, Bangladesh

#### **Significant Contribution:**

- · Developed Backend system using Django and DRF while using Elastic Search to fasten the API responses to 700ms.
- Developed asynchronous APIs using distributed MQ (Celery)
- Designed and integrated different payment gateways.

### Mentor | CQA

### DeepLearning.Al

**August 2021 - July 2022** 

Remote

### **Significant Contribution:**

- Support students and suggest solutions.
- Review code and raise GitHub issues

## **PROFILE**

I am interested in large-scale software and have certain expertise in Building highly secured, scalable, and consistent modern distributed systems. Working primarily on backend technologies, I am disposed to provide something state-of-the-art not only to the science community but also to the business domain through my leadership and diligence.

## EXTRA-CURRICULAR

- Member at Youth-Mock Parliament (2016)
- Design For Change (BRAC University RS Activity)
- Mentor AI and ML workshops at **Omdena**.

## SKILLS

## **Software and System Engineering**

- · Design, Lead and Deliver Agile SDLC
- Design Microservices, Monolithic, Distributed and Decentralized Systems, SDKs.
- Usage of Load Balancing, Elastic Search, MQ, Hashing, Pub-Sub model, Task Scheduling, Signal, Transaction and Caching
- Implementing Payment Gateways, Financial Systems and Transaction Validation.
- Token Based authentication, authorization, permission and social app management
- Django, DRF, Flask, FastAPI, React
- Database Design, Optimization with ORM, RDBMS and No-SQL (MongoDB, Firebase)
- Git, Docker, Kubernetes, GCP, AWS
- Expertise In Complex Data Structure and Algorithms

### **Data Science**

#### Expert in:

- ML and DL algorithms from scratch
- Data Pre-processing, creating Data and Model Pipelines, EDA, Graph Analytics
- Specialized in Deep Learning Frameworks such as Tensorflow, Keras, PyTorch, Trax
- Scikit-learn, Numpy, Pandas, Matplotlib, Seaborn, NetworkX, OpenCV, Pillow, SpaCy, NLTK, Nilearn, Hadoop and Spark

## **PROJECTS**

### **Development Projects:**

### **PRmax System**

PRmax Landing page

#### **Upay Backend**

Upay Web
Upay Android

**Ú** Upay IOS

### Go Zayaan Backend

♣ Go Zayaan Web
▲ Go Zayaan Android

#### Zoo of Karnataka

Zoo Authority of Karnataka

#### All Social Media Under One Platform

Admin App
Agent App

#### **Tech Review Site**

GSM Riders

### **Data Science and AI Projects:**

#### Deep Learning Projects (DeepLearning.ai)

Alvi-Rahman/Deep-Learning-Coursera—deeplearning.ai

#### **GAN Projects**

Alvi-Rahman/GAN-Specialization

#### **Natural Language Processing (Coursera)**

Alvi-Rahman/Natural-Language-Processing-Specialization

### **Stanford Machine Learning (Coursera)**

Alvi-Rahman/Coursera-Machine-Learning-Andrew-Ng

### **Tensorflow in Practice (Coursera)**

Alvi-Rahman/Tensorflow\_in\_practice\_Coursera

### Some Solutions for Online Judge Problems:

Alvi-Rahman/LeetCode\_Solve

Alvi-Rahman/Programming\_Contest\_Problem\_Solve

## **PUBLICATIONS**

 Honorable Mention Award in ACM CSCW 2020: Learning from Tweets: Opportunities and Challenges to Inform Policy Making During Dengue Epidemic. Proc. ACM Hum.-Comput. Interact. 4, CSCW1, Article 065 (May 2020)
 DOI: https://doi.org/10.1145/3392875

## **ACHIEVEMENTS**



1st Runners UP (MUJIB BORSHO IT CARNIVAL 2020- DIU)

View Certificate

## **CERTIFICATIONS**



**Deep Learning Specialization** 

View Certificate



Generative Adversarial Networks (GANs) Specialization

View Certificate



**BIG DATA Specialization** 

View Certificate



**Self-Driving Car Specialization** 

View Certificate



**TensorFlow Developer** 

View Certificate



Al for Medicine Specialization

View Certificate



**Stanford Machine Learning Coursera** 

View Certificate



Natural Language Processing Specialization

View Certificate



Al For Everyone

View Certificate



AWS Fundamentals: Going Cloud-Native

View Certificate



**BIRDS Workshop** 

View Certificate

## REFERENCES

Prof. Sriram Chellappan, Ph.D

@ University of South Florida

csee.usf.edu/~sriramc/

#### Prof. A. B. M. Alim Al Islam, PhD

Bangladesh University of Engineering and Technology

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